

(2)
Élie Luzac
M A N

More than a
M A C H I N E.

W H E R E I N,

- I. The Immateriality of the Soul is demonstrated by invincible Arguments, which set this important Truth in a clear, new, and different Light.
- II. The Objections against an immaterial Principle, from the several Appearances, and from the Observations of Physicians, are examined, and evidently shewn to be fallacious.
- III. The Analogy between Man and Brutes, is minutely considered ; the specific Difference between them is proved not to consist in the Construction of their Bodies ; and the different Phænomena in Brutes are fully explained.
- IV. The impious Consequences that flow from the Opinion of the Materialists are exposed and refuted ; the Existence of a Deity is clearly and amply demonstrated ; the Necessity, in fine, of a religious Worship is solidly established, and shewn to be essential to the Happiness of Man.

In ANSWER to a wicked and atheistical Treatise, written by M. DE LA METTRIE, and intitled, *Man a Machine*.

L O N D O N :

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MEMORANDUM

MEMORANDUM FOR THE RECORD

- I. The Commission on the subject of the proposed amendment to the Constitution of the United States, which was adopted by the Congress of the United States on the 1st day of March, 1869, and which was transmitted to the States for their ratification, has the honor to acknowledge the receipt of the report of the Committee on the subject of the proposed amendment to the Constitution of the United States, which was adopted by the Congress of the United States on the 1st day of March, 1869, and which was transmitted to the States for their ratification.
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Very respectfully,
The Commission on the subject of the proposed amendment to the Constitution of the United States, which was adopted by the Congress of the United States on the 1st day of March, 1869, and which was transmitted to the States for their ratification.

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I Shall not take up the reader's time with an account of my inducements for sending these papers abroad, at a time when irreligion and infidelity overspread the land: as they are upon a most delicate and interesting subject, which, of all others, it most behoves mankind to be well acquainted with, the publication of them needs no apology. I shall only observe, in order to avoid disputing about words, which is far from my intention, that I cannot conceive, how a man of sense can justly give the name of Machine, or Automaton, to a being who is capable of forming different ideas, with respect to different states and conditions, and of coming to a determination in consequence thereof; so long as the word Machine signifies no more than a being actuated and determined by blind causes; for this is, in my opinion, the idea which the vulgar fix to the word Machine. But if by Machine or Automaton we are to understand a being, all whose actions are foreseen, predetermined, and produced by the connexion of effects with their causes, and of causes with their effects, I confess, that man, considered as such, may be called a Machine. However, I beg those who adopt this way of speaking, to tell me freely, whether this is not shewing too little condescension, not to use any harsher expression, for the weakness of the vulgar, who, surely, will never fix such an idea
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to an Automaton, or Machine? And, indeed, the nature of a thinking faculty, and that of the body differ so widely, that there is not the least room to doubt, but their respective modifications ought to be expressed by words, which, instead of confounding, may serve to convey distinct ideas of them. Tho' the meaning of words is arbitrary, yet it is to be wished, that prudence was used in this respect. The good of society requires it, and truth stands in no need of any disguise.



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THE real lover of truth not only seeks after it, but establishes it in his heart ; he weighs the arguments of its opponents, endeavours to refute them, and never looks upon his own ideas as the standard of truth.

Presumption is often the cause of our errors, and induces us to argue in this ridiculous manner: Such a thing appears true to me ; therefore I'm resolved to be blind to all arguments, and even demonstration to the contrary. This is the rock on which most people split, the physician rests satisfied with his observations, and the metaphysician is no less charmed with his abstruse reasoning. They both despise instead of esteeming each other ; so that self-love prevails, and truth is by this means misrepresented.

The physician's ignorance of logic renders him subject to numberless errors, which he readily swallows down for want of the art of drawing just conclusions. He observes that a

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medicine

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medicine which restores a sick person to health, has sometimes this effect, that it changes *a blockhead into a man of sense* : Nothing more is wanting for him to conclude, that man is no more than a *watch* ; and that it is sufficient his spring and wheels be in good order to render him reasonable. Thus it is, that man is a *machine*.

On the other hand, the metaphysicians seem to dread the observations of their antagonists. The eagerness to explain every thing, and the aversion to acknowledge their ignorance, often lead them from one set of absurdities to another, which render them ridiculous. They are not content with proving that the faculty of thinking does not belong to matter ; but they also want to explain the union of two substances so vastly different ; and most of them expose themselves without advancing any thing to the purpose.

To prove that *man is more than a machine*, we need only to consider him such as he is.

He evidently consists of a *material substance* like all other bodies, and of the *faculty of thinking* : 'tis this Faculty that elevates him above other beings, which are either destitute of it, or do not enjoy it in the same degree with himself. By considering this faculty we shall find whether man is more than a *machine*, or whether he is only a composition of springs which are contracted or relaxed like that of a watch.

After a man's birth, the faculty of thinking is enlarged in proportion as the body acquires strength ;

strength; and encreases or becomes weaker along with it.

'Tis only from these appearances that a great many philosophers, and especially physicians have thought themselves entitled to conclude, that the faculty of thinking is an attribute of the material substance of man. But the most prudent observing, that these appearances were not sufficient to answer this end, have endeavoured to prove, that matter might be susceptible of this faculty; and that for this reason it was absurd to have recourse to any other substance distinct from the body, and immaterial.

It must be confessed, that if it was demonstrated, that matter may possess the faculty of thinking, there would be no reason to admit of a second substance in man; since it is only in consequence of the incompatibility of this faculty with matter, that we can admit it. But on the other hand, they who cannot destroy the proofs which shew the impossibility of it, ought to give up the cause, because the appearances prove nothing.

However, as every one is fond of his own ideas, we have in all ages, as well upon this as upon other subjects, seen the wildest disputes, sufficient to furnish a library, and which have only served to make the booksellers live. Those are called *materialists*, who admit of only one substance in man; and those *immaterialists*, who have recourse to a second called the soul. Thus all the systems of philosophers,

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with respect to the human soul, are reduced to two: *materialism*; under which are comprehended all those who deny that man is a composition of two distinct substances, one *material*, the other *immaterial*; and *immaterialism*, which comprehends all those who affirm that he is.

The antients were generally persuaded, that the organization of the parts which form the body, could not produce *perception*, *judgment*, *conviction*, &c. Most of them therefore, maintained, that the *soul*, or the substance endowed with these faculties, was a material substance, really distinct from the organized body; and not being able to form an idea of a thing that was not material, they believed, that the soul was a certain *subtil* and *ethereal* matter, diffused through the whole body. They did not reflect, that as *subtilty* was only relative, it was no more absurd to conceive *gross matter* endowed with these attributes than the most *subtil matter*.

Others imagined, that the whole depended on the organization of the body in general; others on that of the brain; and others have confounded the vital principle with that which is productive of thought. In a word, the most ignorant of these pretended philosophers, resting satisfied with their own conceits, have advanced systems which only contain a number of absurdities.

Their presumption has carried them farther: since some of them, having only a little physical knowledge, have not scrupled to advance,
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that on this subject we ought only to admit of reasonings founded on physical experiments. And to this last class the author of *Man a Machine* belongs.

'Tis true, that if the materiality of the *soul* was proved, the knowledge of her would be an object of natural philosophy, and we might with some appearance of reason reject all arguments to the contrary which are not drawn from that science. But if the soul is not *material*, the investigation of its nature does not belong to natural philosophers, but to those who search into the nature of its faculties, and are called *Metaphysicians*. Now since the grand point is to discover whether the *soul* is *material* or *immaterial*, they who on this subject only admit of physical experiments, suppose the thing in question, and shamefully beg what they ought to prove. Let us therefore hear the *metaphysicians*, as well as the *natural philosophers* on this subject.

Two opposite assertions cannot be true at the same time : so long as they are supported by equal reasons, the assent ought to hesitate, and it would be rash to yield to either.

When two opposite opinions are supported by proofs of equal force, their consequences must be dubious, since the truth of the latter depends on that of the former : so that the assent must hesitate with respect to the consequences as well as the principles from which they are drawn.

Hence

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Hence it follows that the demonstrations of those, who do not refute the arguments which prove the *immateriality* of the *soul*, would not be of force, even though they should not be answered; since in this case the assent must hesitate in the same manner as between two *opposites*, which have seemingly equal proofs: and for the same reason the consequences arising from them could not be admitted, even though they should be lawfully deduced; for the consequences of a thing, the contrary of which is as well proved as itself, must be dubious; so that we must needs suspend our Judgment.

That the doctrine of the *immateriality* of the *soul* may be solidly established, I shall prove.

I. *That what thinks in man cannot be material.*

II. *That physical experiments on material substances, whether they are of the anatomical or chemical kind, do not prove the contrary.* And,

III. *From these principles I shall shew with all the evidence of which the subject is susceptible, that the human soul is an immaterial substance, distinct from the body.*

To obtain the first end, and suit our reasoning to different capacities, we shall not confine ourselves to one argument, which might be sufficient, but shall represent four or five in their strongest light.

'T is

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'Tis certain from experiments, that *matter* is *inert*, that is to say, of such a nature, that when it is once in a state of rest, a certain determined force, external to itself, is necessary to put it into action; and that when it is once in motion, a certain determined force, external to itself, is requisite to change its direction, or put it in a state of rest. Let us see whether this property of matter can coexist with the faculty of thinking. This faculty when exercised, cannot be conceived to be without action or passion. The idea of matter in so perfect rest, that it suffers neither the pressure nor operation of any other substance; or the idea of matter considered purely as existing, excludes all idea of action and passion, that is to say, to *receive* ideas, to *compare* them, to *recall* them, to *judge*, to *prefer* one state to another; in a word, to *think*, suppose a passion, or a substance in action, and of course cannot be the attribute of matter at rest. Since therefore we can only conceive matter in motion, or at rest, it must be motion alone which bestows the faculty of thinking on matter; and for this reason, the faculty of thinking would be such an effect of motion, that the motion being granted, we should also grant the faculty of thinking. Motion would therefore necessarily bestow the faculty of thinking on matter, so that all matter in motion would enjoy that faculty. But if this was the case, why do not bullets and bombs think; and if they think, will their thought

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thought be so divided, that a sixteenth part shall fall here, and an eighth there? Organization, which may perhaps be objected, produces no alteration here, since what we say of matter at rest extends to all matter at rest, whether organized or not. If a particular species of motion should be mentioned: I answer this is absurd, since all motion is no more than a passage from one place to another, which can never produce thought; for this motion, communicated to organized matter does no more than displace and replace the molecules, which are moved. Now let us conceive one of these small particles to go from *A* to *B*, and from *B* to *A*, and see whether this has any thing in common with the faculty of thinking. 'Tis therefore certain that matter cannot enjoy the faculty of thinking, because its rest prevents it, and because it cannot derive it from motion.

Matter is passive, that is to say, all the changes which happen to it, proceed only from the action of some other substance operating upon it. Wood, for instance, is formed into a table only by means of Instruments. The soul, on the contrary, often modifies herself. She represents to herself her own state, her relation to other beings; recollects her ideas, combines them, sees their agreement or difference, and determines the will according as she represents her own felicity to herself. It is therefore certain from the
idea

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idea of activity, that matter cannot be possessed of the faculty of thinking.

But if you bestow the faculty of thinking, on matter, whether in motion, or at rest, why may not the colossus of Rhodes think, as well as you? Bulk or grandeur is only relative, so that we think an object large, which would appear small to us, if our eyes were of a flatter form; and we should call that large, which appears small to us, if our eyes were of a rounder figure, &c. which is made plain by microscopes. Thus if small fibres can think, a pyramid of Egypt may also enjoy the same faculty. Imagine, for instance, these fibres magnified by the microscope to the size of cables, imagine them afterwards ranged in a certain order; then put them in motion, and then see whether the idea of perception has any thing in common with this object; and whether the idea of such a thinking object is not absurd.

So long as matter is at rest, it has an equal tendency to all directions; that is, it is not more disposed to move to one side than to another. Now, if its rest is destroyed, it will only move in one direction; for the idea of a body moving two ways at the same time, is inconsistent. Hence it follows, that if the soul was material, it could only have one idea at once, which is contradicted by the operations of judgment and ratiocination. 'Tis therefore certain,

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from the nature of motion, that thought cannot be a property of matter.

But, to put this affair entirely out of doubt, we shall give the following, most evident and unanswerable demonstration. All matter is extended, and to conceive a particle without extension, is as impossible as to conceive a square globe. If therefore we prove, that the *faculty of thinking* cannot be the property of an *extended substance*, we, by this means, prove, that such a faculty cannot belong to *matter*. The entire thought is either lodged in each particle; or it is there in part, so that one idea is dispersed thro' the whole extent. To assert the former, is to say, that one idea is a thousand; and to affirm the latter, is to conceive one idea divided: both of which suppositions are infinitely absurd.

We have, therefore, proved, by the idea of the *inert state* of matter, by that of *motion*, by that of *relations*, by that of *activity*, and by that of *extension*, that matter cannot be possessed of the *faculty of thinking*. But are these demonstrations evident? Let us be sincere.

Your demonstrations, it will be objected, arise from your ideas; and are you sure that these don't deceive you? Notwithstanding your experiments, I deny, that *inertness* or *inactivity* is essential to matter: prove that an active principle cannot belong to matter, and that there can be no other motion than

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than that of which you have an idea. Two globules of Mercury, at a certain distance, change their figures to come into mutual contact. Is it an active or a passive principle which produces this effect? Imagine the colossus of *Rhodes*, and the pyramid of *Egypt* organised like your own brain, and I deny that they cannot think. You must also prove, that there is no medium for your last argument, and that an idea must be either by parts, or dispersed entire through the extent of a body. I deny, that God cannot bestow the faculty of thinking on matter. I expect proofs before I will yield. Give me these proofs, or confess, with me, that the point is dubious.

These are the strongest things which a Materialist can advance against our demonstrations; and we shall now endeavour to answer all these difficulties. We must then believe the experiments, in which all philosophers agree, and trust to the ideas, which all researches have rendered certain, or which are simple; otherwise the whole is no more than illusion. I would not dispute with a man who doubts whether I talk to him. Now, my demonstrations prove, not only that I cannot conceive how matter can think; but also, that the idea of thinking is absolutely incompatible with the properties which we observe in the substance called *matter*; that it is incompatible with any one of the properties I have consider'd; so that a substance which had but one of these properties, could not think, since only

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one of them excludes this faculty. To be brief, I say, that if, by a *material substance*, we understand, that *matter* which falls under the cognizance of our senses, and which is endowed with the qualities we have mentioned, the *soul* cannot be *material*: so that it must be *immaterial*, and, for the same reason, God could not have given the faculty of thinking to matter, since he cannot perform contradictions.

But, perhaps, a Materialist will say, you talk of matter, and you conceive it endowed with properties incompatible with the faculty of thinking. I grant you, that as we cannot conceive a body at rest so long as it is in motion, so 'tis equally impossible that matter can think, so long as it retains the properties which are incompatible with this faculty. But he will add, you call that a *material substance* which has these properties, and I call a *material substance* the subject or support of these properties, since these properties cannot be the very thing itself which is endow'd with them. I therefore say, that it is not impossible for God to give this *support* or *subject* the faculty of *thinking*, which I prove thus. As this *subject* or *support* is unknown, so we cannot know whether it may not also have, for a property, the faculty of thinking, as well as extension: at least, the impossibility of this is not demonstrated; since this subject not being, as yet, endow'd with the properties you grant it, there is nothing to hinder it from receiving this faculty, so that the omnipotence of God not being limited, he may as well bestow the faculty of

of thinking, on this subject, as that of attracting on the *load-stone*. Thus, since the *soul* may have, for its *subject* or *support*, the same substance with the *body*, it is not determined, whether it has not really the same substance; and, consequently, whether it is *material*, or *immaterial*.

This is an objection so much the stronger, because in admitting it we may, perhaps, resolve a great many difficulties arising from the union of the *soul* with the *body*. Let us, however, see whether it cannot be answered. I therefore assert, in my turn, that all matter is extended, inactive, solid, &c. If you conceive one of these properties destroy'd, you lose the idea of the whole, in the same manner as you cannot conceive a *body* without surfaces. But this is not the case with respect to motion, rest, and other accidental modes. Thus, therefore, as a *mountain* cannot exist without a *valley*, nor a *globe* without a *circumference*, just so the substance which we call *material*, cannot exist without extension, &c. and consequently, this substance or subject cannot be possessed of the faculty of thinking.

But if we suppose, for a moment, that the same *support* may serve two substances, the *soul* and the *body*, this would equally prove, that the *soul* is entirely different from the *body*, so that the properties which God must have given it, would really distinguish it, since these are entirely incompatible with the qualities of matter. Thus, notwithstanding all these

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subtilities, it will be proved, that the *soul* is as distinct from the *body* by its properties, as a triangle is from a circle by their different qualities; even tho' their common support consists of lines infinitely small, disposed in a certain manner. And, according to my opinion, this difference would be a sufficient reason for us to admit the *immateriality* of the soul as a point proved.

Besides, I answer, that the *Materialist* conceives the subject of the properties as a thing which can exist without them, though he only asserts this without proving it. But if, from this, that the idea of any thing conceived, without the properties which always accompany it, is absurd, we cannot conclude, that it is impossible that this thing should exist without these properties; how can a man prove that a triangle cannot exist without the properties which arise from its nature? Hence it follows, that this *support* can as little exist without the properties, the idea of which always accompanies this support, as the properties can exist without this *support*.

These are proofs (at least till some defect is shewn in the above arguments, for such I call them) which demonstrate, that the *faculty of thinking* cannot be a property of matter. Let us now see whether it is proved, that it is such in reality. We might, indeed, after the example of the author of *Man a Machine*, and some others, despise all the arguments advanced on the other side of the question, a practice too common; but this is neither the
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road of truth, nor of the man who seeks after it.

Let us therefore take a view of the writings of the physicians, and see whether their observations prove the contrary.

“ According to the different temperaments,
 “ they say, there must be different degrees of
 “ genius, different characters, and different
 “ manners ; and according to the nature,
 “ abundance, and combination of the hu-
 “ mours, every man becomes a different
 “ man.

“ In diseases, sometimes the soul is eclipsed,
 “ and shews no sign of herself ; whereas, at
 “ other times, she is so transported by passion,
 “ that she seems to be double. Sometimes
 “ the weakness is dissipated, and the recovery
 “ of an idiot produces a man of sense. On
 “ other occasions the most sparkling genius
 “ becoming stupid, is no more to be known ;
 “ but loses all his literature and know-
 “ ledge, acquired with so much labour and
 “ expence.

“ An *Italian* poet fell dangerously ill, re-
 “ covered, and forgot the very letters of the
 “ alphabet ; and the man who had made
 “ beautiful verses, was obliged to go to
 “ school.

“ *Pliny* speaks of a person, who, by a fall,
 “ lost the knowledge of his mother, and his
 “ friends. A disease made another forget the
 “ names of his domestics ; and, by the same
 “ means, *Messala Corvinus*, forgot his own
 “ name.

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“ name. *Valerius Maximus* relates, that a
 “ citizen of *Athens*, by a blow of a stone on
 “ his head, though he retained his memory
 “ in other things, yet forgot all that he knew
 “ of polite literature, to which he had ap-
 “ plied himself.”

In the memoirs of the royal academy of
 sciences for the year 1711, we have the fol-
 lowing account, “ A young man of fortune,
 “ nineteen years of age, who was in perfect
 “ health, and who had a great deal of wit,
 “ with a great share of knowledge for his age,
 “ one day having eaten more than he used
 “ to do at dinner, was suddenly seized with
 “ a violent head-ach, and afterwards with a
 “ severe vomiting and an intense fever, in
 “ which he became delirious. An emetic was
 “ successfully administered, and in three or
 “ four days the fever ceased. But his friends
 “ were astonished to see, that during those
 “ three or four days he spoke nothing;
 “ and that after he was cured, when he en-
 “ deavoured to speak, he absolutely wanted
 “ words, and could find none. He neither
 “ knew the place where he was, nor the
 “ persons with whom he had always lived.
 “ In a word, he lost all the ideas which he
 “ had acquired during nine years. They be-
 “ gan afresh to teach him his language, and
 “ observed that he learned very quickly; but
 “ what is surprising is, that his judgment had
 “ remained very sound, notwithstanding the
 “ entire destruction of his memory.”

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“ A child of eight years of age, who had
 “ made a considerable progress in the *latin*
 “ language, was so affected by the heat of
 “ the summer in 1715, that he lost his me-
 “ mory entirely ; but the cold restored it
 “ to him, and the heat again deprived him
 “ of it.”

“ Here lyes a paralytic who asks if his leg
 “ is in the bed ; and there a soldier who
 “ thinks that he still enjoys the arm which is
 “ cut off. The remembrance of his form-
 “ er sensations, and of the place to which
 “ his soul referred them, constitutes his illu-
 “ sion and his species of delirium. 'Tis
 “ sufficient to talk to him of the part which
 “ he wants, to make him recal and feel all the
 “ motions of it.”

“ One man weeps like a child at the ap-
 “ proaches of death, which another man
 “ sports with. Nothing was wanting to
 “ change the intrepidity of *Canus Julius*,
 “ *Seneca*, and *Petronius*, into pusillanimity
 “ and cowardice, but an obstruction of the
 “ spleen, in the liver, or in the *vena porta*.”

“ What shall we say of those who imagine
 “ themselves *wolves*, *cocks*, &c. who be-
 “ lieve that the dead suck them? of those
 “ who think that their noses or other mem-
 “ bers are glass, and who must be advised
 “ to lie on straw for fear they should break ;
 “ in order to make them find the proper use
 “ of them, and to perceive that they are real
 “ flesh, when fire is put to the straw to make

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“ them

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“ them afraid of being burnt: and this fright
“ has sometimes cured the palsy.”

“ Behold that fatigued soldier, who snores
“ in the trenches, within the noise of an hun-
“ dred pieces of cannon! His soul under-
“ stands nothing, and his sleep is a perfect
“ apoplexy. A bomb is about to crush
“ him; and he will perhaps less feel that
“ blow, than an insect under his foot.”

“ On the other hand, the man, devoured
“ by jealousy, hatred, avarice or ambition,
“ can find no repose. The most retired
“ place, and the most cooling and composing
“ draughts, are all useless to him who has
“ not delivered his heart from the tyranny of
“ those passions.”

The soul and the body are lulled asleep
“ together. In proportion as the motion of
“ the blood becomes calm, a sweet sensa-
“ tion of peace and tranquillity is diffused
“ through the whole machine. The soul feels
“ itself gently become heavy with the eyelids,
“ and sink with the fibres of the brain; so
“ that it gradually becomes, as it were, pa-
“ ralitic, with all the muscles of the body:
“ As these can no longer support the weight
“ of the head, so the soul can no longer
“ support the burden of thought, but she is in
“ sleep as if she did not exist.”

“ If the circulation is too quick, the soul
“ cannot sleep: and on the other hand, if
“ the soul is agitated, the blood cannot move
“ calmly, but gallops in the veins; and these
“ are

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“ are the two reciprocal causes of watchings.
“ A single fright in a dream makes the heart
“ beat with redoubled strokes, and deprives
“ us of the sweets of repose, as much as the
“ most intense pains, or the most pressing
“ wants could do.”

“ Opium, as well as wine and coffee, &c.
“ intoxicates each in their respective manner,
“ and according to the quantity taken. It
“ renders man happy in a state which seems
“ to be as it were the tomb of sensation, as
“ it is the image of death. It induces an
“ agreeable lethargy, out of which the soul
“ would never chuse to awake. She was
“ a prey to the most violent pains; and
“ now she only feels the pleasure of suf-
“ fering no more, and of enjoying the most
“ transporting tranquillity. Opium even
“ changes the determination of the will,
“ and forces the soul, which wanted to wake,
“ and divert herself, to have recourse to the
“ bed against her inclinations.”

“ 'Tis by affecting the imagination, that
“ coffee, that antidote to the effects of wine,
“ dissipates our headaches and chagrins, with-
“ out making us suffer so much the next
“ day as that liquor does.”

“ Let us contemplate the soul in her other
“ wants. The aliments maintain the febrile
“ commotion which the fever excites. With-
“ out them the soul languishes, is seized
“ with a kind of fury, and dies disconsolate.
“ She may be compared to a candle whose

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“ light resumes its pristine brightness ; when
 “ it is just on the point of being extin-
 “ guished. But if we nourish the body, and
 “ fill its vessels with vigorous juices and spi-
 “ rituous liquors, then, the soul, generous
 “ as these, arms herself with an intrepid
 “ courage ; and the soldier, whom water had
 “ made a fugitive, becoming resolute, bravely
 “ encounters death at the beat of the drums.
 “ ’Tis thus that warm water agitates the blood
 “ which cold water had calmed.”

“ The influence of a repast is surprisingly
 “ great : joy reviving in the melancholly
 “ breast, passes into the soul of the company,
 “ who express it by agreeable songs ; on
 “ those occasions the misanthrope alone is
 “ disgusted, and the man of profound study
 “ is not fit for such company.”

“ Crude aliments render animals fierce, and
 “ would produce the same effect in men.
 “ They produce in the soul, hatred, con-
 “ tempt of foreign nations, indocility, and
 “ other sentiments which deprave the cha-
 “ racter, in the same manner as coarse food
 “ produces dull and heavy spirits, whose
 “ properties are idleness and indolence.”

Mr. *Pope* was well acquainted with the
 influence of gluttony, when he said,

*Catius is ever moral, ever grave,
 Thinks who endures a knave is next a knave :
 Save just at dinner — then prefers, no doubt,
 A rogue with venison, to a saint without.*

And

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And a little higher the same poet says,

*See the same man, in vigour, in the gout,
Alone, in company, in place, or out ;
Early at business, and at hazard late,
Mad at a Fox-chase, wise at a debate,
Drunk at a borough, civil at a ball,
Friendly at Hackney, faithless at Whitehall.*

“ Cruel hunger carries mankind to the
“ greatest excesses, so that they have no long-
“ er any respect to the intrails to which they
“ owe, or to which they have given life.
“ They tear them without remorse, make
“ horrible repasts of them, and, in the fury
“ with which they are transported, the weak-
“ est always falls a victim to the strongest.

“ Pregnancy is often not satisfied with
“ producing the deprav'd tastes which ac-
“ company these two states, but she also
“ prompts the soul to execute the most ter-
“ rible designs ; such are the effects of a sud-
“ den *mania*, which extinguishes all regard
“ to the principles of the law of nature.
“ Thus the brain, that receptacle of the soul,
“ is perverted with the body.”

“ There are other species of fury in men
“ and women, who are continent, and enjoy
“ good health. The girl once timorous and
“ modest, after having lost all sense of shame
“ and modesty, no more scruples at incest,
“ than the polite lady regards adultery. If
“ her cravings do not find a speedy supply,
“ they

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“ they will not be confined to the simple
 “ symptoms of a *mania*, or the *furor uterinus*;
 “ but she will die of a disorder for which
 “ there are so many physicians.”

“ We readily perceive the necessary influ-
 “ ence of age over reason. The soul follows
 “ the progress of the body, as well as that
 “ of education. In the fair sex the soul also
 “ depends upon the delicacy of the constitu-
 “ tion. Hence arise that tenderness, that af-
 “ fection, and those lively sentiments founded
 “ rather on passion than reason; and those
 “ prejudices and superstitions, the impression
 “ of which can hardly be effaced. Man, on
 “ the contrary, whose brain and nerves par-
 “ take of the strength of all the solids, has
 “ a more nervous genius, and more mascu-
 “ line features.”

“ Some nations are dull and stupid ge-
 “ nius, while others are lively, quick,
 “ and penetrating. The soul, as well as the
 “ body has her epidemical diseases, and her
 “ scurvy.”

“ She rusts in those who do not exercise
 “ her; and we assume the gestures and ac-
 “ cents of those with whom we live, &c.
 “ just as the eyelids shut spontaneously when
 “ a blow is threatened; or for the same rea-
 “ son that the body of a spectator mechan-
 “ ically and necessarily imitates all the motions
 “ of a good pantomime. Such is also the
 “ influence of a climate, that the man who
 “ changes

“ changes it, is necessarily sensible of the
 “ difference.”

Here are are a great many facts ; but what is it they prove ? only that the faculties of the soul arise, grow, and acquire strength in proportion as the body does ; so that these faculties are weakened in the same proportion as the body is ; that the air we breathe, the aliments we take, the company we keep, and the habits we contract, have an influence over these Faculties ; that determined motions of the body correspond to certain determined motions of the soul, and, *vice versa* ; that in considering creatures in general, the faculties of the soul enjoy a power proportioned to the quantity of the brain ; that the brain is incurvated in proportion to the bulk of the body ; and that the more wisdom we acquire, the more of instinct we lose ? But from all these circumstances it does not follow that the faculty of thinking is an attribute of matter ; that all depends on the manner in which our machine is made ; that the faculties of the soul arise from *a principle of animal life*, from *an innate heat or force*, from *an irritability* of the finest parts of the body, from a *subtil ethereal matter*, diffused through it ; or, in a word, from all these things taken together. Does the same nature (to use the expression of the author of *Man a Machine*) which has observed these eternal laws, tell us that she has not accommodated

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accommodated and regulated all this, so that another substance may use it? Does she tell us, that the order and disorder of these instruments is not the cause why a substance which uses them produces different effects? by no means. Let us give an example to illustrate this affair.

Let us suppose, that through the hole of a chamber-door, we should see the pencil of a skilful painter, drawing a magnificent picture; that, besides, we should observe, that, in proportion as the pencil is out of order, or the colours ill mixed, the picture was defective; would not a man of sense have just reason to laugh at us, if, from this, we should conclude, that it is the pencil which forms the picture by the colours; and if we should pronounce those ridiculous, who prove, that this is incompatible with the pencil, and who admit a directing cause for the production of the effect?

In the same manner we can no more conclude, from all these observations, that the soul is only a mechanism of the body, or such another character of matter, than we can infer, that a musician is only the mechanism of his instrument, because he cannot play well when it is out of order. Cardinal *Polignac* elegantly expresses this sentiment, *lib. 5. v. 713, &c.* and especially *ver. 743, &c.*

We

We have now shewn,

I. That the faculty of thinking (under which we comprehend that of imagining, judging, &c.) is an attribute incompatible with a material substance. Hence it would follow, that if the physical observations demonstrated the contrary, the assent must still remain dubious.

II. That all these observations do not prove the point: whence it follows, that *spirituality* is demonstrated.

III. That since those, who have only experience for their guide, do not demonstrate their system, and since we have solidly established ours, all the lawful conclusions which they can draw from theirs, are void, and of no force; and that all those which are drawn from ours, are as evident as the principles from which they arise.

Let us therefore see what we can reasonably deduce from these observations.

They prove the necessity of a good and perfect organization; but this no more proves, that *organization is the chief merit of man*, than the form of a musical instrument constitutes the chief merit of the musician. In proportion to the goodness of the instrument, the musician charms by his art; and the case is the same with the soul. In proportion to the soundness of the body, the soul is in a better condition to exert her faculties. But, besides, as the physician has only a relation to his instrument, so far as he can use it,

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just

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just so the soul has no relation to the organization of the body, except so far as she can make use of it. Daily experience convinces of this; since a peasant has often a better organized body than a man of learning. It is not the rod that forms the soul of a child, but persuasive reasonings: this is done by a certain address in persuading, that such an action leads to happiness, and such another to misery; by the art of making him comprehend the difference between these two states, but not by blows.

These observations prove the necessity of a good constitution: But tho' the constitution of the body has an influence on the functions of the soul, 'tis equally true, that the constitution alone does not render the soul proper for her different dispositions. For what is more ridiculous, than to fix the source of the sensitive faculties on physical observations? Because the faculties of the soul are exercised with more justness in a sound, than in a disordered body, we have no more reason to make these faculties depend on the constitution of the body, than we have to ascribe the delicacy of sounds to a musical instrument, which would produce false tones, if it was not tuned.

But if thought, and all the faculties of the soul depended only on the organization, as some pretend, how could the imagination *draw a long chain of consequences from the objects it has embraced*? For if the faculty of drawing consequences does not denote an internal principle

ciple in man, that is to say, the faculty of a substance which puts itself in action; and if it depends only on the organization, we must assert, that the medullary membrane assumes the form of the ideas we have successively; so that if the sun, for example, is painted on this membrane, and if we begin to draw consequences from his apparent to his real grandeur, this apparent grandeur, whose diameter is, perhaps, no more than a Line, must grow and increase, to the real grandeur of the sun: much more must it follow, that unless the organization changes every moment in the same man, the consequences which the imagination draws from objects, must be necessarily connected with the impression of these objects, and always accompany them, at least, in those who have an organization sufficiently good to draw consequences; which is a manifest falshood, since the greatest mathematician has often the idea of a triangle, without having its properties present to his mind. The author of *Man a Machine* also supposes, that the soul is distinct from all paintings or impressions, when he says, *That it there finds a true resemblance*; for that which is found, is not certainly that which finds. Besides, if that which finds is the imagination, and if the imagination is the fantastic part of the brain, as is said, *page 28.* and if, along with all this, the paintings or impressions are formed on this part, the opinion of our philosophical physician will not

be less ridiculous than that of a person, who should maintain, that a piece of board discovers the relations between the figures it presents to our view. But, to return to the observations.

They prove, that the body must have a principle of life or motion, that the soul may operate upon it. We have already shewn, that motion has nothing in common with sensation, &c. So that the principle of motion, or the faculty of being able to change place, cannot certainly be the principle which makes us think; and consequently it must be false, *that the principle of motion being granted, animated bodies will have all that is necessary to their enjoying sensation, &c.*

The observations, indeed, prove, that *each fibre has a principle of motion, which is proper to it, and whose action does not depend on any nerve, as voluntary motion does.* Can the soul be the cause of these motions? Do we discover any thing here which cannot be explained by physic, anatomy, &c? This must be granted: but it does not follow, from hence, that the soul is not distinct from the mechanism of the body. The person who should draw this consequence, would reason in the same absurd manner, as he who should say, *the staff stands in the corner, therefore it will rain to-morrow.* This, therefore, only shews, that in the human body, or in all its parts, there is a principle of life, which cannot be explained by mechanico-hydraulic laws. The terms
used

used to design this principle, explain nothing, whether we call it *ενσπῶν*, or *heat*, or *innate force*, or *irritability*. These words, at most, signify no more than the method of acting; and this is sufficient, since, by that means, they serve to give us clear and distinct ideas of the phenomena we observe. But if it should be asked, whence proceeds this *ενσπῶν*, &c. we can no more account for it, than for the effect, which we observe in so many bodies, and which we call *attraction*. In this the weakness of our understanding is palpably discovered.

Let us add, that these experiments also teach us, that the relation which the body has to other things which operate upon it, whether mediately or immediately, has an influence on the relation between the soul and the body.

But as all these effects may equally take place, whether man is composed of two distinct substances, or not, they will not determine in favour of Materiality; and since, on the other hand, it is proved, that intelligence cannot be an attribute of matter, and that man is an intelligent being, it follows, that we must admit Immateriality, and ascribe to the union of two substances, those effects mentioned by the physicians.

That we may disguise nothing, we shall frankly confess, that the union of these two substances is so surprising, that all that has been done to explain it, has only served to
shew

shew the narrow limits of the human understanding. Our soul seems to begin, increase, and become weak with the body ; climates, constitution, and organization have an influence on the exercise of her faculties ; moreover there are diseases, in which man, distracted, and beside himself, only shews, by extravagancies, that he has the faculty of thinking : on his recovery from a disease, which has lasted for some days, we see him resume the series of the ideas he had before his phrenzy, just as if his late state had been only a pure illusion. There is an instance of one man, who being subject to such attacks, in his disorder vomited out horrid blasphemies, and who, nevertheless, when returned to himself, adored his creator, predicted the time when he should be impious, and bewailed his misfortune. These are surprising effects, to which I could add others, any one of which would prove more than all the observations of the author of *Man a Machine*, if the contrary was not solidly established.

In a word, all these experiments and observations only prove, that the union of the soul and body is so close, that the one feels the modification of the other ; that in this union, as well as in all the harmony of the universe, there are constant laws, which make created substances depend on each other ; that if the soul has power over the body, the body has also power over the soul ; and that this subordination is the source of a great part of our hap-

happinefs in this world, as is juftly obferved by Mr. *Pope*, and the author of the *Philofophical Thoughts*. So long as this fubordination is duly regulated, fo that the effects of the body fhall not prevail over the foul, nor thofe of the foul over the body, man muft lead an agreeable and fatisfactory life in every ftate and condition.

Thus, the furprifing effects of this union are fo far from authorifing us to make thefe two fubftances only one, and to eftablifh *organization*, as the *principle of motion*, &c. and as the fource of the faculties of the foul, that they only prove, that the foul has need of a well organized body, &c. to relifh the fweet fruits of her exiftence in this world, and to be able to answer the intentions of her creator. The word *foul* is therefore as little a vain term, fo long as we ufe it to denote the fubject of the faculties afcribed to it, as the word *body*, to denote the fubject of the attributes proper to matter.

These are arguments, more than fufficient (at leaft, to men who are not entirely machines) to prove, in an incontestible manner, that all that is oppofed to the exiftence of an immaterial fubftance, as little hurts this fystem, as the crawling of a worm does the motion of the earth; as alfo to prove, that the organization of the whole body, or of its fmalleft part, cannot produce a fingle perception.

“ *Suppose the vital, animal, natural, and*
 “ *automatic motions are performed by the*
 “ *action*

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“ *action of mechanical springs ; that the body*
 “ *mechanically starts back, and is struck with*
 “ *terror on the unexpected view of a precipice ;*
 “ *and that the eyelids shut when a blow is*
 “ *threatened ;*” yet this does not hinder it to be false, that we mechanically prefer red wine to white, or the works of a *Milton*, to those of some blundering poet. Is it mechanically, and by pulleys and wheels, that we form an idea of our state, that we compare these states by the ideas which represent them, and that the judgment determines the will ? Let the physician say, whether 'tis mechanically that he orders a clyster for one, a vomit for another, and a venesection for a third. Woe be to the patients, if the spring of the physician should be out of order, as there is great appearance it would !

To have recourse to the impressions which external objects make on our soul, is the last resource. 'Tis asked, why certain objects excite such desires ; why the sound of a flute pleases me ; why the gestures and actions of a player make me weep ; why certain motions in dancing, suited to certain sounds of the violin, make me love the girl who is my partner ; why wine makes him laugh, who wept a little before ; or make him, who otherwise reasons as a wise man, talk like a fool ? I confess, I know nothing of the matter ; neither can my ignorance change vain discourses into solid proofs. If a man was to conclude, that there would not be a peace, because he could not assign reasons to induce the powers
 to

to finish the war, he would render himself ridiculous. Because I cannot explain, why certain motions excited in the nerves, excite certain ideas, it does not follow, that these nerves are endowed with these ideas.

But I ask, in my turn, why a spectre makes an atheist fly like a hare? Why *Scevola* could put his hand into the flames, and *Chelia* expose herself to the waves of the *Tyber*? Why I do not become weary, when flight can save my life? Why do certain reflections make me adhere to a point, which a mistress in tears would make me quit? "A man is extended on the ground, without sensation, speech, heat, or motion: he is turned over and over again, tossed about, and has fire applied to him, but nothing moves him; and even red-hot iron cannot produce a single symptom of life, so that he is thought dead, but is not really so. This, however, is the case of the priest of *Calama*, who, when he pleased, upon the feigning of a lamentable sound, so abstracted himself from his senses, and lay so like a dead man, that he was not only entirely insensible of punctures and vellications, but also, sometimes, when he was severely burned, he had no sense of pain, except what afterwards arose from the wound." *Philosoph. Thoughts, from Augustine de Civitat. Dei, lib. xiv. ch. 24.* If all depends on the constitution of the body, whence proceed these contrarieties? If it is matter that thinks,

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whence

whence arises this empire of the reflections? Whence these lively images, when the object does not excite them? Where is the matter which interrupts its course to take another? If, like our adversaries, we had proved nothing, these difficulties would make us hesitate between *materiality* and *immateriality*: but since we have proofs on our side, which they have not on theirs, and since these difficulties are as strong against their system, as against ours, they, of course, confound them, and give us the victory.

Let us farther pursue these observations. If all ideas were only the effects of a motion communicated to the nerves, thought could never be active, but must, on the contrary, be always passive. We have demonstrated the falshood of this proposition, and shall now pursue the consequences of it. Since the motion of the nerves supposes an action, that is, a cause which has put them in motion, and since this cause cannot be found in matter, because matter only follows the motion communicated to it, 'tis necessary, for the production of the idea of an object, that this object should be present, and act on the nerves: and yet, if I want to represent to myself the physiognomy of a friend, I represent it to myself in as lively a manner as if he was present. If the soul has not an active principle, capable of renewing the images which it desires, where is the cause which operates? I want, by combining some ideas, to represent to myself certain objects,
 whence which

which have never operated on my senses, and which, perhaps, do not exist. I do so, and what is the cause of it? My ideas represent to me a voice which sings, and which charms me. For some time, wrapt up in my own imagination, the most perfect music presents itself to my soul: and what is the cause of this? Let us consider the surprising effects of the imagination, and see whether the motion of the brain can produce them. What motion of the brain is necessary to a man, who instantaneously resolves all questions in arithmetic; or to a girl, who tho' she can neither read nor write, yet, in a moment, calculates the minutes of your age? What motion was necessary to the brain of *Wallis*, or what was the cause of it, when, by the pure force of imagination, he made the extraction of the square root with no more than fifty six figures? If the soul of *Ovid* had waited till the muscles of his brain were put into motion, where would his metamorphoses have been?

Now, since some ideas, excited by an active force, communicate a motion to the organs, and as this motion also produces ideas, it is proved, that the motion of these muscles has not a necessary connection with these ideas, since these last are anterior to such a motion; that if man stands in need of these muscles to receive ideas, he does not always stand in need of them to form them; that thus the existence of ideas formed by perception, destroys the necessity of muscular motion; and lastly, that

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these ideas may very well exist without the existence of muscles : whence it follows, that if certain motions co-exist with, or rather succeed certain ideas, or precede them, this cannot be a sufficient reason to ascribe the faculty of having these ideas to matter in motion; but rather an evident proof of the contrary, since these same ideas may exist without these motions, and really exist anterior to them.

We have therefore demonstrated, in the strongest manner, and even from the observations produced to the contrary, that they who admit an immaterial substance distinct from the body, tread in the paths of true philosophy, and are, by no means, obliged to have recourse to the operation of the Holy Ghost, as the author of *Man a Machine* pretends; and that, on the contrary, they who deny the immateriality of the soul, are reduced to the vain terms of imagination, sympathy, nature, &c. and only make a chaos of their ideas.

“ A fine soul indeed, says that author, and
 “ a powerful will, which cannot act, except in
 “ so far as the dispositions of the body permit
 “ it, and whose relishes are changed with age,
 “ or by a fever, &c.”

Let us return irony for irony. A marvellous artist indeed, who can only act in so far as the disposition of his instruments permit him, and whose productions will be finished only in proportion to the goodness of his tools : yet no
 body

body is so stupid as not to acknowledge the artist as the principal cause of his productions; and no person can be so absurd as to ascribe the most curious part of the work to the instruments. And even tho' it was as generally true, as it is false, that *for one order that the soul gives, it is subjected to the yoke a hundred times*, we should not have a less invincible argument, to prove, that this being, which is endowed with will, is entirely distinct from the fantastic part of the brain, from the organization, &c. for the will being only that action of the soul, by which it prefers one state to another, 'tis evident, that this action cannot depend on an inactive matter, which always follows the motion in which it is, till some external cause turns it out of its direction. Now I ask, whether the idea of my state, or of a state more or less happy, can be produced by the action of objects on the nerves? And even tho' this were as true as the contrary of it is, the determination of the will, or the assent we give to such or such a state, depends on a principle which is superior to the nerves, and exercises its power over them. But we must be entirely unacquainted with man, before we can fall into such absurdities. 'Tis true, we daily see people so enslaved by their passions, that the soul seems to have lost the greatest part of her power; but, except in violent disorders, we never see the soul deprived of the whole of her power: and, besides, 'tis for want of culture and care, that
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the passions get the superiority. If a person is but tolerably well manag'd in his youth, and will but make a moderate use of his reason, in a more advanced age, there are no passions which he cannot surmount; and the soul preserving her empire, and gradually accustomed to make use of the body, according to the laws which she finds in herself, will make of the animal man, a being who will bless the source from whence he derives it.

Do you, who degrade your soul, and despise her faculties, deny that your will is the love of your life, and the power of thinking its greatest blessing?

Is man therefore a machine below a brute animal; the whole of whom is only an assemblage of springs wound up by each other; without our being able to say at what point of the circle human nature began? A clock, of which the new chyle is the artificer? No: he is a composition of two substances really distinct, of which the one, which falls under our senses, is material; and the other, which discovers itself by its faculties, enjoys a principle incompatible with matter. These are closely united, and subordinated to each other, tho' we cannot explain their union, nor their mutual action.

If it was necessary to institute a comparison between man and a watch, we ought rather to say, that he who takes the nourishment of which the chyle is formed, is the artificer, or, more properly, the agent of a being, who has charged him with the care of this clock. But all this is
nothing

nothing to the purpose, because no person can deny, that the body becomes an unprofitable abode for the soul, if there is not a sufficient quantity of animal spirits, just as a violin is of no use to a musician, if it wants strings.

Besides, as a new chyle is necessary to support the body, so the soul must be always employ'd in the exercise of her faculties. As the body is weaken'd by yielding to the stimulus of its desires, so the soul is lost by suffering herself to be carried off by the rapidity of her ideas; just as the billows are impelled by their own force. Let a man eat and drink plentifully, as long as he will; let a new chyle support him for sixty years successively, he will not, in this respect, be more than a plant, or a tree, supplied with fresh juices. Without reading, conversation, and logic, either natural or artificial, the soul, notwithstanding all the chyle in the world, will lye sunk in her primitive stupidity. Champaign will never change a peasant into a doctor; nor brown bread, a philosopher into a fool. Aliments therefore will only support the material part of man, unless we should say, that baked apples can be metamorphosed into the representation of a flower.

Tho' sobriety greatly contributes to the right exercise of the faculties of the soul, yet we must be absolutely deprived of judgment, if we look upon it as the source of all the virtues, and affirm, that all morality is useless to him who is not possessed of it. Sobriety will
never

never render a covetous man less vicious, nor a perfidious man less detestable. In a word, if it is only for want of taste that a person is sober, this quality does not deserve the name of a virtue. Besides, 'tis false, *that all morality is useless to him who does not partake of sobriety.* If a drunkard represents to himself the fatal effects of his propensity to liquor, or others set them in a strong light to him, he may get rid of his failing. A certain person told me, that he had always had some liquor by his side on the compters, and that he could not look at it without drinking. However, one day reflecting on the state to which this abuse was likely to reduce him, he suddenly formed a resolution to abstain from it, and succeeded without sustaining any detriment. Of this I could produce numberless other examples. But, to return to the subject; all these persons had not their other good qualities diminished for want of sobriety. Let us therefore say, (and we only say a truth, which so many authors have solidly proved, and which we shall afterwards prove) that the belief of a supreme being, the love of him, and a fixed resolution of following his will, is the only source of all virtue; and that since sobriety is a cause which leaves us the use of our reason, we must be sober in order to exercise the other virtues; and, on the contrary, we must shun intemperance, which might induce us to actions contrary to the divine will. Thus sobriety is so far from
being

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being *the source of all the virtues*, that it only deserves the name of a virtue, in so far as it leaves us the power of being virtuous.

If the soul is not the sole cause of our motions; organization, the principle of life, &c. can still be less so.

Besides the proofs we have already given of this, to be convinced of it, we need only cast our eyes on a person who plays on the violin, and we shall discover a surprising suppleness and agility in his fingers. Now, I defy all the artists in the world, to discover the spring which puts them in motion. If the automata of *Vaucanson* play some airs, the notes are determined and directed by a weight; but this is not the case with a musician; he casts his eye on his book, and makes the instrument speak. What relation is there between some notes on the paper, ranged according to a certain order, and the motion of the fingers? If these notes produce this effect by a mechanism, why do they not do so at first, and why must the musician accustom himself to them? Why must he first know the arrangement of these notes, and endeavour to touch them on the violin, before they can produce the intended effect? Why, in a piece of music, must he determine his will for each note? The insensibility of this truth does not render it less evident. When I play a piece of music, which I never saw before, my will directs the smallest motion of my fingers, and I can make a break at every instant.

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I can fall from an Adagio to an Allegro, and *vice versa*. Besides, this is not all, my will must determine the time which each note ought to last. This is particularly observable in concerts, and when, by the direction of the will, I with the first finger touch the notes, which naturally ought to be touched with the third. Besides, if the springs in my body enable me to play a certain air, what stops these wheels, when, all on a sudden, I begin another? It cannot be said, that these wheels, of themselves, and without any other cause, assume another course. If to change the tune of the Automaton of *Vaucanson*, a certain cause is necessary, we must, in comparing man to this machine, grant some equivalent cause in him.

When we see a child, with his finger and thumb directing one ball so as to strike another, who directs his muscles? And do we not find persons, who without knowing the notes, either in a book, or on a musical instrument, yet play certain airs with a great deal of delicacy?

An apoplexy, a lethargy, a catalepsy, and other disorders of a similar nature, no doubt present us with surprising phenomena; and let us, for a moment, suppose, that, in these disorders, thought is extinguished by the loss of sensation, this can only relate to that species of thought which results from sensation; but does not prove, that thought depends on sensation, and cannot subsist without it. This
this

is so far from being the case, that we have already proved, that thought may very well subsist without muscles, and consequently without sensation, though sensation cannot subsist without thought : and others have proved, that it is dubious, whether the soul thinks in lethargic disorders, so that it is no less ridiculous than rash, to affirm, or to deny it.

The universe, every where, presents us with wonders, and convinces us of the narrow limits of our understanding : if we cannot conceive how motion is excited and begun in the body, nor how sensation and reflexion are produced, we ought to beware of confiding in experiments which carry no conviction along with them.

The abettors of Materiality are not contented with their observations, (and can they be blamed ?) but they also have recourse to the analogy between men and other animals. They want to prove, that man does not differ but more or less from the brutes ; that the latter being declared machines, the former may be so too. This is the tendency of what these gentlemen advance on this subject.

“ Let us, say they, open the intrails of
 “ men and animals, for the only way of
 “ knowing human nature, if we have not
 “ already a knowledge of this point, is by
 “ a just comparison of the structure of the
 “ one with that of the other.

“ We readily perceive, that animals have
 “ a principle of life as well as men : let us

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“ therefore attend to the following experiments.

“ The flesh of animals palpitates after death, so much the longer as the animal is cold, and has but a small transpiration; tortoises, lizards, and serpents, are sufficient proofs of this.—The muscles separated from the body, shrink when pricked. The intrails, for a long time, retain their peristaltic or vermicular motion. A simple injection of warm water re-animates the heart and muscles, according to *Cowper*.

“ The heart of a frog, especially when exposed to the sun, on a table, or on a warm plate, moves for an hour or more, after it is torn from the body. If the motion seems entirely lost, you need only prick the heart, and it beats. *Harvey* has made the same observation on toads.

“ Lord *Verulam*, in his *History of Life and Death*, speaks of a man, convicted of treason, who was opened alive, and whose heart, when thrown into the fire, several times jumped a foot and a half high.

“ Take a chick out of the egg, pull out its heart, and you will observe the same phænomena, with almost the same circumstances. The warmth of the human breath reanimates an animal ready to die in the air-pump.

“ These experiments, made by *Boyle* and *Steno*, may be also made on pigeons, dogs, and rabbits, portions of whose hearts move
“ just

“ just as the entire hearts do. The same species of motion is found in the intrails of a mole when torn out.”

“ The caterpillar, the worm, the spider, the fly, and the eel, afford us an opportunity of considering the same things; and the motion of the parts cut, is augmented in warm water, on account of the fire it contains.

“ A drunken foldier, with a stroke of his sword, cut off the head of a turkey; notwithstanding which, the animal continued on foot, walked, run, and happening to meet with a wall, turned, beat his wings, and at last fell down; and when stretched on the earth, all his muscles moved. All these phenomena I have seen in puppies and kittens, whose heads have been cut off.

“ Polypusses do more than move after they are cut; for they are reproduced in eight days, in as many animals as there are parts cut.”

There is therefore a principle of life in animals as well as in men, and indeed in each of their parts: but all these observations only serve to prove a point which the immaterialists do not dispute. The principle of motion has nothing in common with the principle which makes us think. However, let us proceed in the recital of the observations, and the just parallel between the structure of men and animals.

In

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“ In general, the form and composition of
“ the brain of quadrupeds, is nearly the same
“ with that of man. There is the same figure
“ and disposition every where, with this essen-
“ tial difference, that, of all animals, man has
“ the largest and most winding brain, in pro-
“ portion to the bulk of his body. After
“ him comes the ape, the beaver, the ele-
“ phant, the dog, the fox, and the cat; for
“ these are the animals which most resemble
“ man.

“ Next to quadrupeds, birds have the
“ greatest quantity of brain. Fishes have
“ large heads, but like a great many men,
“ very little sense in them. They have scaly
“ bodies, and very little brains, which is en-
“ tirely wanting in insects.

“ From these observations, 'tis concluded,
“ that the more fierce animals are, the less
“ brains they have; that this organ is, in
“ in some measure, large, in proportion to
“ their docility; that, in this case, there is a
“ singular condition, which is, that the more
“ is gained in point of understanding, the
“ more is lost in point of instinct.

“ The quantity of the brain alone is not
“ sufficient; the quality must correspond
“ to the quantity, and the solids and fluids
“ must also be in that due equilibrium which
“ is requisite for health.

“ If a weak person does not want brain, as
“ is generally observed, yet that organ is de-
“ fective thro' a bad consistence, as too great
“ softness,

“ softness, for example. The case is the same
 “ with fools; the defects of their brain do
 “ not always escape our researches: but if the
 “ causes of weakness and folly, &c. are not
 “ always sensible, how can we pretend to inve-
 “ stigate the causes of the surprising variety of
 “ genius, since these escape the eyes of *Argus*
 “ and the *Lynx*? A mere trifle, a small fibre,
 “ something which the most subtile anatomy
 “ cannot discover, would, according to some
 “ observers, have made two ideots of *Eraf-*
 “ *mus* and *Fontenelle*.

“ Besides the softness of the marrow of
 “ the brain, in children, puppies, and birds,
 “ *Willis* has observed, that the cavernous bo-
 “ dies are effaced, and, as it were, discoloured in
 “ these animals, and that their furrows are as
 “ imperfectly formed as in paralytic patients.
 “ He adds, that man has the annular protu-
 “ berance very large, and that it is after-
 “ wards diminished by degrees, in the ape,
 “ and the other animals before mentioned,
 “ while the calf, the ox, the wolf, the hog,
 “ &c. which have this part very small, have
 “ the *nates* and the *testes* very large.

“ Among animals, some learn to speak and
 “ sing; they retain the airs, and catch the
 “ notes as exactly as a musician. Others,
 “ which discover far more sagacity, such as
 “ the ape, cannot arrive at this point: and
 “ must not this be certainly owing to a defect
 “ in the organs of speech?

Sir

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Sir William Temple, in his memoirs, tells the following story of a parrot, " I had always a great desire to know, from the mouth of prince Maurice of Nassau, the truth of a story, which I had often heard, of a parrot which he had during his government of Brasil. As I imagined I should never see him again, I begged him to inform me in all the particulars. 'Twas said, that this parrot made questions and answers just as a reasonable creature; so that, in his prince's family, it was thought to be possessed. It was also reported, that one of his chaplains, who afterwards lived in Holland, conceived so strong an aversion to all parrots, on account of this one, that he could not endure them, and said they were all possessed by the devil. I had heard all these circumstances, and several others, which were told me as true, which obliged me to beg of the prince, that he would tell me the truth: Accordingly he told me, with his usual freedom, that some part of it was true, but the greatest part false. He said, that when he went to Brasil, he heard of this parrot, and though he did not believe the truth of what had been told him, yet he had the curiosity to send a great way to have it brought to him: That the bird was very old, very large, and that when it came into the hall where the prince was, with a great many Hollanders along with him, it no sooner saw them, than it said, What a company of white men is this? Then pointing at the prince,

“ prince, they asked it who he was? The par-
 “ rot replied, some general. Then they brought
 “ him to the prince, who asked him whence he
 “ came? To which he replied, from Marignan.
 “ The prince then asked him to whom he be-
 “ longed? To which he answered, to a Por-
 “ tuguese. The prince said, what do you do
 “ there? To which the parrot replied, I watch
 “ the poultry. Then said the prince, Do you
 “ watch the poultry? The parrot answered,
 “ Yes, I watch the poultry, and I know
 “ how to say, CHUC, CHUC, the usual word
 “ in calling fowls; and which the parrot re-
 “ peated several times. I also asked the prince,
 “ in what language the parrot spoke? He
 “ answered me, in the Brazilian. I asked
 “ him if he understood that language? He said
 “ he did not, but he took care to have two in-
 “ terpreters, a Brazilian who spoke Dutch, and
 “ a Dutchman who spoke Brazilian; that he
 “ interrogated them both separately, and that
 “ they both gave him the same account. I was
 “ unwilling to omit this story, because it is very
 “ singular, and may be depended on for truth;
 “ at least, I’m certain, that the prince be-
 “ lieved what he told me, because he was a
 “ man of strict honour and veracity.

“ From animals, the transition to man is
 “ is not forced. Words, languages, laws,
 “ sciences, and the arts are learnt by
 “ time, and by these the mind is polished.
 “ Man is taught as animals are: one person

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“ becomes an author, as another becomes a
“ porter : a mathematician learns to make
“ demonstrations, and the most difficult cal-
“ culations ; just as an ape to take off and
“ put on his cap, or to mount a dog.

“ What animal would die of hunger in a
“ river of milk ? Man alone ! like to the
“ grown child, mentioned by a modern from
“ *Arnobius* ; he knows neither the aliments
“ proper for him, nor the water which can
“ drown him, nor the fire which can reduce
“ him to ashes. When a child first sees the
“ light of a candle, he naturally puts his
“ finger to the flame, to know what this new
“ appearance is ; but finding what the dan-
“ ger of it is, he can never be drawn into
“ the same snare again.

“ Place a child with an animal on the
“ brink of a precipice, and suppose both to fall
“ from it, the former will be drowned, where-
“ as the latter will save itself by swimming.
“ A boy of 14 or 15 years of age, has but
“ a glimmering notion of the exquisite plea-
“ sures which accompany the propagation of
“ his species ; and even when he is more
“ advanced, he hardly knows how to enjoy
“ them, since he conceals his designs, as if
“ he was ashamed of pleasure and happiness,
“ whereas other animals are proud of being
“ *Cynics*. They want education, and are
“ therefore free from prejudice. Let us con-
“ sider a child and a dog, who have both
“ lost

“ lost their master on the road ; the former
 “ weeps, and knows not whose aid to im-
 “ plore, whereas the latter, by his scent, soon
 “ finds his owner.

“ I appeal to our naturalists ; let them tell
 “ us, whether man, at first, is any thing
 “ more than a worm, which becomes man,
 “ just as some worms become butter-flies.
 “ Some great authors have given us direc-
 “ tions how we may see this animalcule. All
 “ the curious naturalists have seen it, and
 “ particularly *Hartsoecker*, in the male, and
 “ not in the female semen, so that none
 “ but fools disbelieve the thing. As every
 “ drop of the human semen contains an infi-
 “ nite number of these worms, so when they
 “ are thrown into the ovary, none but the
 “ most vigorous insinuates itself, and fixes in
 “ the egg furnished by the woman, which
 “ gives it its first nourishment. This egg
 “ entering the fallopian tubes, is thro’ them
 “ convey’d to the uterus, where it takes root
 “ like a grain of corn in the earth : but tho’
 “ this egg becomes very large, by its conti-
 “ nuance there for nine months, yet it does
 “ not differ from the eggs of other females,
 “ except in this, that its skin, the *Amnios*,
 “ never becomes hard, but dilates itself sur-
 “ prisingly, as we may judge, by comparing
 “ the foetus in a proper posture, and ready to
 “ be brought into the world (which I have
 “ had the pleasure of observing in a woman

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“ who died a little before her time) with
 “ other embryo's, not long formed; for then
 “ 'tis the egg in its shell, and the ani-
 “ mal in the egg, which, cramped in its mo-
 “ tions, mechanically seeks to see the day,
 “ and for that purpose begins, by breaking
 “ with its head this membrane, from whence
 “ it comes like the chick and the goslin
 “ from theirs. 'Tis also to be observed, that
 “ the *amnios* does not become the thinner for
 “ being so surprisngly distended, but, in this
 “ respect, resembles the uterus, whose sub-
 “ stance is surprisngly inflated by the infil-
 “ trated juices, independantly of the repletion
 “ and unfolding of all its vascular coats.

“ Let us view man in the membrane, and
 “ out of it: let us, with a microscope, exa-
 “ mine the youngest embryo's, four, six,
 “ eight, or fifteen days old, after which time
 “ the naked eye is sufficient for the purpose,
 “ and we see no more than the head alone, a
 “ small round egg, with two black specks
 “ for the eyes: before this, every thing be-
 “ ing without form, we only perceive a me-
 “ dullary pulp, which is the brain, where the
 “ origin of the nerves is formed, or the prin-
 “ ciple of sensation, and the heart, which has,
 “ even in that pulp, the faculty of beating.
 “ This is the *punctum saliens* of *Malpighi*,
 “ which, perhaps, at this very time, owes a
 “ part of its vivacity to the nerves: after this
 “ we gradually see the head send forth the
 “ neck, which, by dilating itself, first forms
 “ the

“ the *thorax*, into which the heart descends,
 “ in order to fix itself; after which the *abdo-*
 “ *men* is formed, which is separated from the
 “ *thorax*, by a kind of partition call'd the
 “ *diaphragm*.”

After all these facts faithfully related from *Man a Machine*, and which we are willing to suppose true, (though some of them may be justly called in question) what conclusion can we, from all those observations, draw, with respect to the analogy between men and other animals, and the insensible gradation of all beings.

Because we cannot find the limits between the fassile and vegetable kingdoms, yet this is no reason why we should affirm that there is no difference between them. Because an animal, the first of its kind, discovers more industry than a weak man, this is no reason why men and animals only differ from each other in the construction of their bodies. Notwithstanding what Mr. *Locke* has said on this subject, and what others may add to it, I cannot see that the conclusion is lawfully drawn. If a skilful painter uses a bad pencil, and wretched colours, he is not the less skilful because his productions do not bear the marks of his dexterity. Give a bungler good pencils, and lively colours, and yet he will not be preferable to his comrade, who could do as much with the same materials. If the soul of a weak person has not what is necessary to produce effects proportionable to its nature,
 it

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it is not for this less superior to the cause, which, in brutes, produces phænomena surpassing these effects. The machine of *Vaucanson* plays more justly than I; but the cause which gives this power, is not superior to that which makes me play worse. If any person is foolish enough to affirm this, why does the cause which gives me this power, after three months practice give me a power to which that machine will never attain?

Hence it appears, that the comparisons between certain men and certain animals do not lay a foundation for concluding any thing with respect to the causes which make them act. These causes, though very different in their nature, may produce similar effects, as the examples given shew, and as the smallest reflection may convince us.

We do not deny, that by attributing an immaterial substance to man, to sustain the faculty of thinking, we must grant one to animals, and even to polypuses, if they are endowed with sensation, &c. The above arguments prove this: but this is nothing in favour of our adversaries; they cannot, from this, conclude, that an animal has a spiritual soul, which only differs, more or less, from that of man; or if they do, their conclusion will be rash. When we demonstrated, that the faculty of thinking is incompatible with a material substance, we demonstrated it of this faculty, such as it is in man. Thus to draw the conclusion to animals, it would

would be necessary to prove that they enjoy the same faculties as we ascribe to our soul, and that they possess them in the same manner ; or it ought to be proved, that what they do necessarily requires an immaterial substance : a thing which we shall not deny, but of which we may reasonably demand a demonstration, before we yield our assent ; for we observe in ourselves, how objects operate upon us ; we advert internally how we come to be persuaded ; and we every day perceive that the case is the same with other men. But from this single consideration, and because animals seem endowed with the faculty of thinking, we can never be convinced, that they have the same convictions and motives which influence and determine our wills. Let us therefore stop here and conclude nothing ; for the analogy between animals and men holds so long as we only consider matter, and what our eyes present to us ; but when we come to consider the other faculties which we find in a man, this analogy does by no means hold, since effects, which to us appear entirely similar, may be produced by causes essentially different.

I shall, no doubt, be told, as a great many authors are, that we must be determined by signs, and that the signs which animals discover, bear the marks of a principle active in itself. If this was true, it would be proved, that animals are endowed with an immaterial substance, distinct from the body ; since an
active

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active principle cannot be an attribute of matter, according to the arguments already produced on this subject. By this means it would also be proved, that animals are not pure machines. *Descartes* and his followers were never so infatuated as to ascribe to animals a principle active in itself, and at the same time to declare them automata.

I shall willingly grant those who confide in signs, the conclusions they draw from them, as soon as they have shewn me that in their reasoning, they do not suppose that these signs can only proceed from the faculties which we discover in ourselves; for this is precisely the point in dispute. The veracity and goodness of God are also concerned as soon as it is our interest to know a thing; thus if we will conclude any thing from this principle, it ought to be previously proved, that it is of importance to us to know whether animals think, and have souls such as ours. As for my own part, I do not see what influence the negative or the affirmative has on the happiness of mankind; for granting either of the two, it must equally concur to their good.

That we may therefore omit nothing on this subject, let us see with what these signs present us. “The dog who has bit his master, appears to repent of it next moment, he is sad, sorry, ashamed to shew himself, and confesses himself culpable by an humble cringing. History furnishes us
“ with

“ with a memorable example of a lion who
 “ would not destroy a man exposed to his
 “ fury, because he knew him for his be-
 “ factor.”

“ A being to whom nature gives so fine
 “ an instinct, and who seems to judge, like
 “ ourselves, to combine, to reason, to deli-
 “ berate, as much as the sphere of his acti-
 “ vity extends and will permit him ; a being
 “ who seems to be bound by favours, who
 “ deserts on account of bad treatment, and
 “ seeks out for a better master ; a being of a
 “ structure similar to ours, who performs
 “ the same operations, seems to have the
 “ same passions, the same pains and plea-
 “ sures more or less intense, according to the
 “ construction and delicacy of the nerves ; such
 “ a being shews plainly, that he is sensible of
 “ his own and our faults ; that he distinguishes
 “ between good and evil ; and in a word,
 “ that he has a consciousness of what he does.
 “ His soul, which, like ours, seems to feel
 “ the same joys, the same mortifications, and
 “ the same disappointments, would not surely
 “ be without uneasiness on seeing a creature
 “ like himself torn to pieces, or after hav-
 “ ing done so himself. This being granted,
 “ say these drawers of consequences, the pre-
 “ cious gift in dispute would not have been
 “ refused to animals ; for since they give
 “ evident signs of their repentance, as well
 “ as of their intelligence, there is nothing
 “ absurd in supposing that beings almost as

I

“ perfect

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“ perfect as ourselves, are, like us, designed
“ for thinking.

“ In the human species, as in that of ani-
“ mals, with respect to ferocity the case is
“ the same. Men who have acquired a bar-
“ barous habit of breaking thro’ the laws of
“ nature, are not so much tormented as those
“ who transgress against them for the first
“ time, and who are not hardened by the
“ force of example. The case is the same
“ with animals as with men, both may be
“ more or less fierce by constitution, and
“ they become still more so with those who
“ are cruel.

“ What end does it answer to exclaim against
“ the fierceness of animals, when men daily
“ combat each other, *Swiss* against *Swiss*,
“ brother against brother, and chain or kill
“ one another without remorse, because a
“ prince pays them for the murders they
“ commit.

“ Do we not see persons who commit even
“ involuntary and constitutional crimes, such
“ as the man of *Orleans*, who could not pos-
“ sibly keep from robbing? There was a
“ certain woman, who, during her preg-
“ nancy, could not abstain from theft, and
“ her children inherited the same vice. Ano-
“ ther in the same condition eat her husband,
“ and another cut the throats of her children,
“ salted their bodies, and eat of them every
“ day. The daughter of a cannibal robber,
“ became a cannibal at twelve years of age, tho’
“ she

“ she had lost her parents when a year old, and
 “ was brought up with honest people. Not to
 “ mention a great many other examples with
 “ which our natural historians abound, and
 “ which all prove that there are a thousand
 “ hereditary vices and virtues, which pass
 “ from the parents to the children, as those
 “ of the nurse do to the infants; such is the
 “ analogy between men and animals.”

“ If therefore we deny animals the know-
 “ ledge of good and evil; if an animal, after
 “ the commission of a crime, does not re-
 “ pent for having violated his internal sense;
 “ or rather if he is absolutely deprived of it,
 “ man, 'tis said, may be in the same condi-
 “ tion; in which case there is an end of the
 “ law of nature, and all the beautiful treatises
 “ which have been wrote on it: all the animal
 “ kingdom would be generally destitute of it.
 “ But on the otherhand, if man must grant that
 “ when he is in health he always distinguishes
 “ those who have probity, humanity and vir-
 “ tue, from those who are neither humane, vir-
 “ tuous nor honest; and that it is easy to distin-
 “ guish virtue from vice; it follows that ani-
 “ mals must partake of the same prerogatives
 “ of animality; and that thus there is no
 “ sensitive substance without remorse.”

These are the conclusions which they deduce
 from this analogy, and which amount to no
 more than this: that if men are endowed with
 an intellectual principle, which determines itself,
 we cannot deny the same to animals; that on

the contrary, if animals are machines, men must be so also; that granting either of these, the same natural law which takes place with respect to men, must also take place with respect to animals; that man was originally made inferior to other animals, which are often better provided for by their instinct, than man is by his reason, and which often follow the pure laws of equity better than man.

We have already observed what influence the analogy between men and animals has on the present subject. If animals discover phænomena similar to those which depend on our intellectual principle, yet this last presents us with appearances to which animals can never attain. Our proofs of the immateriality of the human soul have been drawn from the incompatibility of its faculties with a material substance. So long as we know not that animals think, reflect and determine like us, from convictions with respect to the choice of their state, we can decide nothing concerning the cause of the phænomena with which they present us.

If, with *Descartes*, and those of his opinion in this point, a person believes that animals are pure machines; be it so: yet this belief will in no manner injure the arguments which we have deduced from the faculties of man; and the animal a machine, or rather declared such by men, will not degrade man, and render him less a being *who is more than a machine*.

But

But it will be said, if all the phænomena with which animals daily present us, and all these effects result, or may result from pure mechanism, why may not these which you produce equally result from the same cause? The former only differ from the latter with respect to more or less, relatively to our manner of considering them. Thus a better construction, a juster arrangement, more delicate filaments, and a compleater organization might have made an animal a man; just as the simple structure makes a clock, which only points at the hours, differ from another, which strikes as well as goes. This anatomy teaches us with as much evidence, as the consideration of clocks does with respect to them; if then these animals are machines, what hinders you from being so also?

My intelligence, which is incompatible with matter, and cannot be produced by all the organizations, and all the other chimeras of mechanism. Because a weight sets the automaton of *Vaucanson* in motion, and makes *Huygens's* clock strike, must my words proceed from the same principle? But I have already shewn the insufficiency of conclusions founded on appearances. I desire my real happiness; every thing which either augments, preserves, or excites it, is *good*; and that which produces the contrary, is *bad*. Now, the confession of the difference between good and evil, supposes an intimate persuasion with respect to the state in which we are; and this confession is accom-

panied

panied with a power of chusing between several states, which power, as well as desire, knowledge, and persuasion, can exist only in an intellectual principle which has the power of determining itself, and not in a machine which moves by mechanico-hydraulic laws, or others of a like nature.

If we grant animals a sensitive principle, and prove, that this principle cannot be an attribute of matter ; and if, from this, we conclude, that animals are, like men, endow'd with two distinct substances, one material, and the other immaterial ; be it so too, yet, by bestowing this principle on animals, we have not a right to ascribe to them all the faculties enjoy'd by the active principle, which determines the wills of men to action.

If I may speak what I think on this subject, we are not, nor never shall be sufficiently enlightened, in this respect, to advance any thing certain. I repeat it again : if animals presented us with evident marks of intelligence, we should be oblig'd to grant them an immaterial substance ; if, on the contrary, they presented us with evident marks of the contrary, we must refuse it them. I leave those, who have examined into this subject, to judge to what degree of evidence these two opposites have been carried, and shall here readily confess the limits of my understanding, reading, and reflexions.

Since man remains what he is, tho' beasts are declared machines, let us see, whether, by
 declaring

declaring animals more than a machine, man is degraded from his faculties.

An animal, 'tis said, is often better conducted by instinct, than man by his reason. Let us suppose this true. The fingers of the machine of *Vaucanson* are better conducted on the flute, than those of a peasant, who can only till the ground: will it follow from this, that the machine is possessed of as marvellous a principle as the peasant is? Examples are changed into arguments when we reason upon appearances. If instinct often guides animals well, it often guides them very ill, tho' they do not come to tell us so. An ox-stall is set on fire, and the oxen run into it. When birds have eaten poison instead of the aliments they sought, they do not come to tell it us after they are dead. If we do not see bears fight with bears, we see dogs fight with dogs for a bone: and even tho' all should escape our knowledge, because we do not see it, can we thence conclude, that these animals have not their petty broils? that they do not tare and kill each other? If they have a sensitive principle, how do we know but they are also subject to ambition, hatred, avarice? &c. If these passions are not so strong in them, are their contraries the stronger? If the ape discovers more judgment, he also shews more malice. If the lion is generous, he is also more wrathful. If the dog discovers remorse, it is only at the sight of the stick which threatens to beat him, or
certain

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certain motions which make him afraid. Never has any one been able to bring up a dog like a child : nor is it possible to persuade a horse, that his state with a king is preferable to his state with a labourer. Do we find, that brutes which follow the pure laws of simple equity, do so from the determination of a will regulated by the will of a superior ? This, however, is the source of human liberty, and of the law of nature. Let brutes be as sensible as they will, so long as they are only carried to objects for the present, without desiring them for their consequences, they will differ essentially from men, whom we shall prove to be obliged to all their actions for the sake of consequences.

But even though it was as true as it is false, that man was a machine, it is not fair to draw the consequences from it which some people do. Grant that there are certain maladies and certain vices hereditary ; that certain diseases are accompanied with these vices in certain persons ; that reason become a slave to a depraved or enraged sense, cannot govern it ; grant, in fine, that man is no more than a machine, and that this machine only acts by these springs : it is sufficient to oblige them, that there be means to make these springs go ; in such or such a manner ; that rewards and punishments can make them go well, and that the springs can determine themselves to action. If this machine has in itself the power of acquiring good or bad habits ; if this machine,
who

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who has its reason depraved or furious, is itself the cause why its reason has lost the empire over the senses, and is become a slave to them; will it be more excusable, because it has acquired the barbarous habit of hurting, and will this habit stand instead of innocence? This would introduce a foul sort of justice into the world; and these machines would form a very strange society.

They do not stop here, but push their folly farther: 'tis not sufficient not to punish these miserable machines, whose wills are depraved, whose consciences are extinguished, who have acquired the barbarous habit of breaking the law of nature, and whom the force of example has hardened: but nature must also have deprived these unfortunate wretches of the remains of remorse, that they may harden themselves in vice, and find no obstacle to the gratification of their irregular passions. These are the admirable doctrines of the law of nature, to which, according to the author of *Man a Machine*, intelligent beings, and at the same time machines would be subjected.

But what renders these systems compleatly ridiculous, is, that the persons who pronounce men machines, give them properties which belie their assertion. If beings are but machines, why do they grant them a natural law, an internal sense, a kind of dread? These are ideas which cannot be excited by objects which operate on our senses. Let us here observe, that if the natural law is but a kind of dread,

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it is converted into a rule, which every one can accommodate to his own pleasure, in proportion as he is timorous, and which he may boldly despise, as soon as he has no more reason to be in fear. This is a natural law, which supposes neither education, revelation, nor legislator, but only a mind perplexed and confounded by chimeras.

The abettors of materiality take the advantage of every circumstance : to support their system, they have recourse to hatching of the egg in the womb. Let us suppose, that this system was subject to no difficulties ; that the spermatic animalcula are really the stamina of the human body, yet can man, whom we have proved to have faculties which cannot be attributed to matter, spring from a spermatic animal, when, at the same time, the conclusion only affects the body, or the material part of man ?

We are ignorant of the formation of man, as well as of that of other creatures. We observe how the embryo grows and extends itself, but all this knowledge only relates to the material part. The faculties of the soul discover themselves gradually, and are augmented in proportion as they are cultivated, and as age advances. In ourselves we observe the surprising effects of these faculties, and the knowledge we reap from abstract ideas. Observations convince us, that these faculties have a close and particular connection with all the parts of the body ; and as it is already proved,

proved, that man is compounded of two substances, from that we reasonably conclude, that these two substances are united in the most close and surprising manner; and that as one of these two substances is endow'd with an intellectual principle, man is not a pure machine, but a being more than a machine.

A philosopher does not blush because he does not know every thing, and is still less ashamed to confess his ignorance. 'Tis sufficient for him, that what he embraces be proved, while its opposite is not; and this reason ought to induce every rational being to confess the immateriality of the soul.

After having so evidently demonstrated the immateriality of the human soul, and shewn, that we must ascribe the surprising effects we observe in man, to the union of two substances; let us now specify the consequences which some materialists deduce, or rather want to deduce from their opinion.

They then conclude from it: 1st, That every thing which exists is material, and that its parts only differ from each other with respect to their relation to other parts. 2dly, That springs make the universe go, and produce all the phænomena which we see, just as the spring of a watch makes the wheels and hand go. 3dly, That we are ignorant of the cause of this construction. 4thly, That chance might have produced. 5thly, That it may have been from all eternity. 6thly, That men formed in consequence of this

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eternal revolution, are thrown upon the surface of this earth, without our knowing how or why, farther than this, that they must live and die, like those mushrooms which appear from day to day, or those flowers which grow on the borders of ditches, or on walls. 7thly, That as the reason of the existence of the universe is in the universe itself, so the reason of the existence of man is in man himself, as a part of the universe. 8thly, That the motion which preserves the universe, may have produced it. 9thly, That there may be a medium between God and chance, which might have been the eternal chain of causes and effects. 10thly, That even though a supreme Being should exist, this existence would no more prove the necessity of a worship, than the existence of any other thing. 11thly, That it is impossible for us to ascend to the origin of things, and to know the views of that Being. 12thly, That it is equal to us, whether there be a God or not. 13thly, That mankind cannot be happy without being atheists.

If I am not mistaken, these are the consequences which a materialist thinks may be deduced from the unity of man, as the basis of the unity of the universe. As I am naturally fonder of following my own thoughts, than of copying those of another, I shall not here collect all that authors have said on this subject, but shall only give a specimen of my

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own sentiments, founded on my own researches.

We have no reason to demonstrate, that even though man was material, and a pure machine, it would not thence follow, that the universe was also a material machine, supported by its eternal revolutions, the successive series of which would have been from all eternity, and would necessarily flow from each other. This assertion supposes a perfect knowledge of every thing that exists, and is consequently of no force. We confess, that we are ignorant of the cause of the construction of the universe, and of the revolutions which happen in it; but this ignorance is not of such a nature as to hinder us from perceiving what is incompatible with these revolutions, and their original cause. We are ignorant of the nature of motion, but we know, that to move in two directions at once, is incompatible with this property of bodies. We also know, that the part of the universe, which presents itself to our senses, is governed by certain fixed and immutable laws. If we cannot know the whole, we can know enough, as we shall now shew, to be certain and convinced, that there is a God, a supreme Being, the first, productive, intelligent, and directing Cause of every thing without itself; who has not been induced by necessity, but by wisdom, goodness, &c. to produce the universal system, and who has had omnipotence to execute his will.

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Let us enter into a detail : The reason of the existence of a thing is call'd the cause why it exists, and the principle which makes it exist. Thus the reason of the existence of the Son, is comprehended in the existence of the Father.

If the reason of the existence of the universe, was in the universe, this existence would be a necessary consequence of its own nature, so that its own nature would contain the cause or reason of its existence, as the nature of a triangle contains the reason of its three sides : so that the existence of the universe would be such an effect of its nature, that the idea of its non-existence would imply a contradiction. The nature of the universe would therefore render its existence necessary ; but as its nature cannot make it exist necessarily in such or such a manner in general, it will make it exist, necessarily, in a particular determinate manner. Hence, since this particular determinate manner is necessarily connected with its existence, the universe would always exist in the same manner, and could not exist in another ; so that the parts which compose it, ought always to preserve the same relation between each other, which is shewn to be false, by every thing that presents itself to our minds.

It is also prov'd, by this reasoning, that the series of these revolutions, or causes, can as little have the reason of its existence in itself, as each of these revolutions, or causes, can have it in itself. Hence it also follows, that these revolutions, being relations changed,

changed, are so many proofs, that the universe has not the reason of its existence in itself; and that self-existence is as contrary to a being formed by, or subjected to these revolutions, as unequal radii are to a circle. 'Tis therefore proved, that the universe, taking all its parts together, has not the reason of its existence in itself; and that it must consequently have been produced.

But let the whole exist necessarily in a determinate manner, in this case the parts must also exist in a determinate manner, since a single variation of a single part, whether with respect to existence, or the manner of existence, has an influence on, and conveys a variation to the whole, which is incompatible with an invariable whole; so that the universe having in itself the reason of its own existence, all its parts must of course have the reason of their existence in themselves. Hence it also follows, that if we prove, that one of the parts of the universe has not the reason of its existence in itself; the universe, in like manner, cannot have it. We are therefore to prove, that man has not the reason of his existence in himself, by which means the suppositions of the sceptics will be of no force. If the reason of man's existence was in man himself, this existence would be a necessary consequence of his own nature, so that his own nature would contain the cause or reason of his existence. Now, since his nature would imply

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imply the cause of his existence, it would also imply his existence itself, so that man could no more be considered as non-existent, than a circle can be considered without radii, or a picture without features or proportions.

Again, if the reason of man's existence is in man himself, this existence cannot be separated from him; and as there is no reason for his non-existence, man must always continue what he now is; and as his nature cannot contain the reason which makes him cease to be man, what can be the cause which reduces him to dust? I do not speak of mankind in general, but of individuals.

To this argument we shall add another, (of the same nature with that which we have used with respect to the universe) which will prove, that if the existence of man was in man himself, he would then be an invariable being.

If the reason of man's existence was in himself, this existence would be, as it were, a consequence of his nature, so that this nature would make him exist necessarily; and as this nature cannot make him exist necessarily, in such or such a manner in general, it will make him exist necessarily in a determinate manner. Thus, since this determinate manner is necessarily connected with his existence, man must always exist in the same manner; which reduces us to a manifest absurdity, since man is not a moment the same.

After having demonstrated, (in what the schools call an indirect manner) that the reason
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son of man's existence is not in himself, we shall now prove the same by a direct demonstration.

Since there is a time in which man does not exist, and another in which he does, it follows, that a cause is necessary for the existence of man. Now, what is not, cannot have the cause of its existence in itself, since this would suppose it to act before it existed; so that the cause which makes it exist, is not in itself, but without itself. Hence it follows, that the reason of man's existence is not in himself.

Having thus demonstrated, that the cause of man's existence is not in himself, let us now prove, that the cause of his existence, as well as of every thing else, cannot be ascribed to chance, which might have thrown him on the surface of this earth, to live and die like mushrooms, which appear from day to day, without our knowing how or why.

Every chance, if there is any such thing, supposes acting causes; so that before chance could take place, there must have been acting causes. These causes were determined in a particular manner; so that chance must have hindered them from producing their effect, by making them produce another, or must have assisted them in producing the effect they ought to have produced, or chance must have done nothing. To suppose that chance has done nothing, is to reject chance. To suppose that she has hindered acting causes from producing their effects, is to suppose her an
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acting cause ; and to suppose that she has assisted acting causes in the production of their effects, is also to suppose her an acting cause ; whence we conclude, that chance must have been an acting cause. Now, since every acting cause cannot act in such or such a manner, but in a determinate manner, it follows, that chance must have been an acting cause in a determinate manner, and consequently must have produced a determinate effect, which renders the non-existence of this effect impossible, and destroys the idea of chance.

If, after all this, some tell us, that the motion which preserves the world, might have produced it, they do not so much as deserve an answer ; since motion, being only a change of place, supposes a thing which changes its place : so that their reasoning will amount to this, that the change of place must have produced the thing which changes its place, or that a voyage from *Paris* to *London*, could have created me.

Besides, it is only asserted, but not proved, that motion preserves the world. It, no doubt, contributes to it, in so far as the idea of preservation includes that of motion, and because the Creator has design'd that it should be in motion ; but if we take away the idea of motion from created things, we shall not, by that means, lose the idea of the things themselves.

If

If it is said, that each body has taken the place which nature has assigned it, we have only to read the authors who have refuted this error of the antient atheists, a set of men who ascribed every thing to a certain mechanism, the meaning of which they knew as little of, as the moderns, who use the same term. In a word, what is meant by taking the place assign'd by nature? These are mere words without a meaning. Shall the place which the body is to possess, be essential to it? This is as much as to say, that we cannot move, nor conceive that a body should go from one place to another. All bodies must, in this case, necessarily preserve the place in which they are. It would follow, from this, that the air, according to mechanico-hydrostatic laws, must have taken the upper place, in consequence of the specific gravity of matter, and that metals, for the same reason, took the inferior place. It would be needless to muster up every thing which destroys this opinion: we shall only observe, that the universe could not be produced by mechanico-hydrostatic laws, since this still amounts to the production of the universe by motion; an opinion, the absurdity of which we have already shewn. Let us, for a moment, suppose, that the atoms of *Epicurus*, or any other particles of matter, have, of themselves, acquired a certain determinate motion, (though this assertion implies as many absurdities as it contains words) why are they placed at different centers? Why has the place, where the sun now is, been possessed

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by one set of atoms, and the center of our globe by another; and so on, of an infinite number of centers? The effect cannot be without its cause: and if this happens in virtue of mechanico-hydrostatic laws, there must be an exact agreement between the places which each body possesses, and its specific gravity; which is shewn to be false, by the observations in the *Philosophical Transactions*. Let us also advert to the circumvolution of the sun and planets round their axis, the periodic motion of the planets round the sun, and that of the secondary round the primary planets, and we shall observe in them a certain motion and propensity, which differs both from gravity, and from this motion, which, according to atheists, must have assigned them the places they possess.

I would not willingly take advantage of any man's ignorance, but I could wish, that people, who reject evident proofs, would, at least, produce, for their opinions, such arguments as do not lead into so palpable absurdities.

'Tis also absolutely false, to say, that we cannot ascend to the origin of things. We know, that every effect must have the cause, or the reason of its existence, and of the manner of its existence: since therefore we have demonstrated, that man, and the whole universe, have not the cause of their existence in themselves, this cause must be without them; and again, this other cause must either have cause of its existence in itself, or in a cause without

without itself. Now, since a series of causes and effects, without a beginning, is an absurdity, and since this series cannot have the cause or reason of its existence in itself, according to the demonstrations already given, it is proved, that the contrary of this proposition is true; namely, that there is a first cause, which exists of itself, and is immutable, &c. It is not losing ourselves in infinity, to give proofs of the existence of a being, and of the attributes which are inseparable from his nature.

Let us therefore boldly answer those who speak in the following strain, "We know not nature, and therefore causes hid in her bosom may have produced every thing, &c."

'Tis true, we know not the universe, nor its composition; but what we know of it, evidently proves to us, that causes concealed in its bosom, cannot have produced it. View the most subtile particle of matter; contemplate the whole universe, and then judge, whether you observe, in its bosom, the smallest mark of self-existence. The generation of the polypus is indeed surprising; but it does not, in its bosom, present you with the first cause of its existence. This sudden change, which astonishes you, proves, that you must seek for the reason of its existence in a cause without itself. Weigh the arguments we have advanced, and you will confess, that there is nothing more absurd than to imagine, that there are physical causes for which all things have

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have been made, and to which the whole chain of this vast universe is so necessarily connected and subjected. You will confess, that every thing which happens, happens in consequence of some wise end; and that this end can only be the will of an intelligent and perfect Being, who exists by his own nature: that it is not true, that because it is as difficult to conceive how such a Being exists, as it is to conceive how matter can exist by its own nature, it is not therefore proved, that such a Being must exist, since the absurdity of the latter proposition is proved. You will confess, that it is ignorance which makes people have recourse to chance; and that knowledge leads a man to the existence of an intelligent Creator: who is so far from being an imaginary entity, that his goodness, wisdom, and power manifest themselves in the smallest productions: that you deceive yourselves, when convinced, that chance is only a chimera, you search for a medium between God and chance: that you can fix no meaning to the word nature, which you set up for that medium, unless it denotes the Being whose existence you deny, or the universe, or its organization; and that since it is proved, that this universe cannot be made by itself, nor by chance, it is therefore demonstrated, that an intelligent Being, whom we call God, has produced it.

If, notwithstanding all these reasons, and the refutation of all the arguments to the contrary, the atheist continues obstinate, and will not quit his prejudices; if, after it is demonstrated

monstrated to him, that motion being only an attribute of a substance, this substance can't be created by it; that the motion which preserves the world, whether accidental or essential to matter, could neither have produced it, nor have been produced by it, since the one supposes the other, or that the substance at rest must be repugnant to motion. If, I say, after all these convincing reasons, the atheist continues to hide himself under the vague term, nature, with which he sports so ridiculously, we have just reason to lament his fate.

After having thus proved, that the existence of the universe, and its parts, necessarily supposes a cause which produced them; and that this production cannot be ascribed to chance, or any fortuitous cause, &c. that the universe not existing of itself, and not being generated by chance, is not from all eternity, but produced by a cause which is not intermediate between God and chance, which is not the chain or eternal series of causes, but a cause which exists of itself, and which is consequently immutable, omnipotent, &c. in a word, the cause which we call God. Let us now prove, that it is false, that this existence does not demonstrate the necessity of worship, and that this worship is inseparable from the conviction of such an existence.

Self-existence implies immutability, independence, a state of perfect happiness, a complete knowledge, the power of creating implies

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an unlimited power; the arrangement of the productions is an argument of infinite wisdom; and the will to give existence is a proof of boundless goodness: in a word, this existence implies all the attributes, which so many excellent writers have proved to be essential to the Deity, and to these authors we refer the reader. It is sufficient for us to have hinted at them, to demonstrate, that it is false, that this existence does not prove the necessity of worship, and that worship is inseparable from the conviction of such an existence.

By worship, I understand, the act of regulating our wills by that of the supreme Being: and to prove the necessity of this worship, we shall now consider those human actions which may depend on the will, first with respect to their effects, and then with respect to their authors or agents. By this means we shall discover, of what virtue an atheist can boast, what true virtue is, to whom it can be ascribed, and by what standard human actions may be determined good or bad.

Some celebrated philosophers have ascribed the ideas we have of *good* and *evil*, to education alone. I confess, education is very efficacious for the formation of our sentiments; but I shall now shew, that it is by no means the standard of virtue and vice; that human actions do not change their nature by the different ideas formed of them in different countries; and in a word, that the difference between virtue and vice is immutable.

There

There are, so far as we can judge, two opposite states for all intelligent beings. They may be either happy or miserable. Perfect felicity is a state preferable to all others; and, for the same reason, absolute unhappiness is a state to which all others are preferable. Now, as the state of a being is only its manner of existing, and as this manner of existing does not depend on the idea he forms of it, since whatever idea he forms of it, he will always exist in the manner in which he does exist, it thence follows, that the state which is preferable to all others, is so by its own nature; and that to which all other states are preferable, is also so by its own nature: so that these two states being, by their nature, what they are, the difference between them results from their essence; in consequence of which this difference must be eternal and immutable.

The same holds true of every other state, which being only the manner of existing, cannot depend on the idea which a person forms of it, but in its own nature is more or less distant from perfect felicity, or absolute misery. That no doubt may remain with respect to this point, we need only consider, that the manner of existing includes the knowledge which the being who exists has of his own state: so that the being who enjoys a perfect felicity, also has a perfect knowledge of his own state; and this is the state of the supreme Being.

There are therefore two states for man, considered as an intelligent being: he may be

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happy, or he may be miserable; and his happiness will increase in proportion as his state approaches to perfect felicity, and his misery in proportion as it is distant from it.

In proportion as man quits his infancy, and as his mind acquires strength, he learns to discern what may do him good or evil; that is, to form ideas of a state more or less happy: his ideas of his state will not render his happiness or misery more or less real, since, besides the reasons already advanced, the manner in which he exists, or his state, comprehends, at the same time, the ideas which he forms of it.

Man cannot form an idea of the state which is preferable to all others, nor of that to which all others are preferable: but by forming ideas of what is incompatible with these states, he may approach to them by avoiding their contrary or opposites. Now, since it is only so far as we can judge of what is incompatible with happiness or misery, that we can judge of the happiness or misery of our state, it follows, that it is by our understanding, that we must form our choice between these different states; and that our judgment will be just or false, in proportion as the understanding is well or ill disposed: hence it follows, that the culture and improvement of our understanding, must be the source of our happiness.

What we here say of man, relates not only to every society, but also to the whole human species. The state of mankind does not depend
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on the ideas which a person may form of it, so that it must be happy, because such or such a man judges, that this state is preferable to all others ; but it will be so, in proportion as those who compose it, discern its superior advantage, and contribute to it.

To apply these reasonings to *virtue* and *vice* ; by the word *virtue*, I mean, every thing which tends to the happiness of mankind, of society, and of every individual ; and by *vice*, every thing that produces the contrary effect : so that, in this sense, all human actions may be said to be either virtuous or vicious (a).

Since there is an immutable and eternal difference between the state of the happy, and that of the miserable, there must also be the same between the things which render these states more or less happy, because these states will be so by their nature, that is to say, by that which renders them what they are. Hence it evidently follows, that there is an eternal and immutable difference between *virtue* and *vice*.

Education may give us false ideas of a happy or miserable state, which too frequently

(a) The reader must perceive, that I here consider human actions, without any relation to their agents. This is to inform those who may boast of an action conformable to the divine will, that they have no claim of this kind, unless they do such an action with this intention. For the same reason, we shall demonstrate the difference between virtue and real virtue, between vice and real vice, in order to shew the atheists, that they can only have a chimerical virtue.

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happens ; but neither education, nor false reasoning, can change *virtue* into *vice*, or *vice* into *virtue*.

Thus, whether an action formerly has been reckoned good or bad ; or whether such an action is at present reputed good or bad ; this action will always be good or bad by its nature, that is, in proportion as it contributes to the happiness or misery of the human species, or of individuals. Hence actions are good or bad, according as they tend to happiness or misery.

The happiness of society flows only from that which can render it happy. Thus it depends on the actions which tend to this purpose ; so that a society must be happy or miserable, according as the actions of those who compose it, are virtuous or vicious. And as the happiness of society is essentially connected with that of all its members, and as their happiness depends, in a great measure, on that of the society, men would be naturally inclined to virtue, if they understood this proposition, and if thro' want of perfection they were not so misled, as often to prefer an imaginary to a real good.

Hence we conclude, that without the consideration of a supreme Being, men may do *good* or *evil*, if by *good* we mean virtuous, and by *evil*, vicious actions, in the sense we have affixed to these words. Hence it also follows, in this sense, that the actions of an atheist may be virtuous or vicious, as well as those of other men.

Hitherto

Hitherto we have only spoken of actions considered relatively to their effects, and shewn that man is capable of two states, one of happiness, and the other of misery; that the same holds true of all societies, and of mankind in general; and that calling what contributes to this happiness, *virtue*, and what produces the contrary effect, *vice*; *virtue* and *vice* are essentially different.

But as men are intelligent beings, and as intelligence alone can make them know the difference between happiness and misery, and consequently between *virtue* and *vice*, it follows, that the actions of men cannot be virtuous with respect to themselves, but in so far as they have been rendered such by intelligence; and that since intelligence determines actions to *virtue* or *vice*, these actions cannot be virtuous or vicious with respect to the agents, but in so far as knowledge and the will determines them.

Men, however, rarely form just ideas of their happiness, and for want of perfection, often embrace imaginary for real good; so that the society must be miserable, if every one followed his own ideas, that is, if every one was left to judge of the happiness of society, and to act accordingly. This consideration laid a foundation for civil laws.

But as there are actions done every day, as civil justice cannot always know the actions of the citizens, and as sovereigns ought to be conducted by just ideas, both of their own hap-

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happiness, and that of mankind; it follows hence, that notwithstanding the civil laws, there would be still a great deal wanting to societies; and that for the reasons already advanced, there would also be a great deal wanting to the happiness of mankind; if in these cases every one was to act in consequence of the ideas he forms of his own happiness, and that of mankind. Experience sufficiently proves, that men often prefer imaginary to real good, and as frequently their own private interest to that of the public.

Now, since men, for want of perfection, often form a false judgment of their own happiness, and since, for the same reason, they do not advert to the connection of their happiness with that of other creatures, nor to their obligation to promote the good of the whole, and all its parts; the question, on the other hand, is to know, whether men cannot be persuaded to fix their attention on what may render them happy or miserable, and to acknowledge their indispensable obligation to promote, not only their own happiness, but also that of all mankind; so that their happiness or misery must always be in proportion to what they have contributed to the public happiness or misery. The cause which produces this effect, is called the law of nature.

Three principles may conduct us to the rules of this law. First, We may be conducted by a principle of fear. Secondly, By a principle of love. And, Thirdly, By these two

two principles together, considered only in themselves.

If the principle of fear served as the rule of our actions; that is to say, if we did good, only that evil might not befall us, diffidence and distrust would subvert all society: *man would be a wolf to man*, as Mr. *Hobbes* expresses it. The principle of fear is necessary, but it is not sufficient; and here it is that *Hobbes* has lost himself. In a word, men would only seek to take the objects of fear out of the way; and there would be no end of wars.

If the principle of love served as the rule of our actions, that is to say, if we did good, only with an expectation that people should make us a return; this motive, however noble, would only serve to furnish the wicked with arms: for the foundation of my hope being a similar judgment of others with respect to me, experience would soon prove to me, that I am deceived; since the want of perfection in man, always conceals from him this necessity of doing good to others, that he may be happy himself. The principle of love is necessary, but not sufficient.

The principle of love is necessary, because I cannot expect good from him to whom I do none. The principle of fear is necessary, to defend me from those who do not acknowledge the former principle. But as I can never be sure, that a man forms a right judgment in this respect, I must always conduct myself

myself by the principle of fear, and all men ought to do the same; so that as these two principles are not sufficient in conjunction, nor any one of them separately; there must still be another cause to induce man to fix his attention on his own happiness, and to convince him of the indispensable obligation he lies under to contribute to the happiness of every individual, and of mankind in general.

The idea of a supreme Being, on whom all creatures depend, furnishes us with this true principle, which is, a respect for our Creator. This principle implies, at once, the principle of love, and that of fear. It influences the good and the wicked. The former are inclined to that which can render them truly happy, and the latter are forced to it.

From the nature of this Being we infer, that in producing his creatures, he, among other designs, had their own happiness in view; and not only the happiness of individuals, but also that of all mankind. This end, thus considered in itself, is not, however, of sufficient force to determine creatures, who are inclined to the present and imaginary good, and who do not see the connection of their own happiness with that of other beings. They must perceive, that they are absolutely oblig'd to fix their attention on their own happiness, and on the connection which it has with that of others; and in a word, they must be convinced of their indispensable obligation to pursue their own happiness, and contribute to that

that of others. Now this cannot be, unless we are persuaded, that a Being, on whom we depend, can and will reward or punish those who have contributed to, or neglected this end; whence it follows, that the persuasion of the existence of a Deity, is as essential to the law of nature, as this law is essential to the proof of a Deity.

The idea of the goodness of this Being, who has manifested it by our production, is, no doubt, sufficient to excite us to merit this goodness, since he, who has been so good, has a power of doing us still greater good; and as nothing limits his omnipotence and goodness, if we contribute all we can to promote his end, we should, from this, have a solid hope, sufficient to induce man to act according to the divine will, if there were not present and imaginary goods, which divert him from it.

But as this Being is not obliged to regard creatures who do not follow his will, he may treat them according to his pleasure; and as there is a real difference between those who do his will, and those who do it not, there must also be a real difference between the treatment of those who do good, and those who do evil. Since therefore there is a sufficient reason for these different treatments, the justice of the supreme Being will not permit, that he should not punish those who have acted contrary to his will, and that he should not give

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a greater degree of happiness to those who have contributed to his end.

But it may be said, all this does not prove, whether God will and can oblige us with justice; that is, whether he has a right, as well as the power and will to do so. It may be said, that a being cannot have the power of indispensably obliging another, unless the latter has freely submitted his will to the former. Now, as it is not proved, that men have done this with respect to God, so it is not proved, that God has a right to oblige them. “I know, the libertine will add, all
 “that you can say on this subject: you will,
 “among other things, say, that as God willed
 “the happiness of these creatures, and as these
 “creatures themselves wished it, a consent
 “must be presumed, by which the crea-
 “tures submit themselves to the free dispo-
 “sal of the Deity. I perceive, he will add,
 “all the force of this argument, and the
 “advantage which the moralists draw from
 “it. But this consent supposing, in him who
 “gives it, a right to refuse it, you advance
 “nothing; since you thus make the right
 “of God over his creatures, depend on his
 “creatures themselves: besides, I deny, that
 “this consent is to be presumed, because
 “most creatures are not intelligent enough
 “to acknowledge the necessity of it.”

To this objection I shall briefly answer, that for the same reason that the Creator exists by his own nature, he is vested with a full liberty

berty, that is to say, with a power of doing whatever is agreeable to his wisdom. Thus the Creator has a power of proposing an end, and of using the means which conduce to it. If therefore the creation of certain beings, existing in a certain manner, is one of these means, God has a right to produce them; and since 'tis necessary, that these beings should exist in such a manner, as that they should be obliged to regulate their wills by that of the Creator, God has a right to produce them such. Thus God has a right of exacting it, of rewarding and punishing them, &c. without any necessity for their consenting to it.

We have therefore proved, that the Creator has a power, a will, and a right to oblige his creatures to follow his will, that is to say, to will every thing which tends to their own happiness, and that of mankind in general.

By considering actions with respect to their effects, we have determined the meaning of the words *virtue* and *vice*. We shall now consider actions with respect to their agents, and determine what *real virtue* and *real vice* are.

God wills, that we should prefer a state of happiness to that of misery. Now, since the act of preferring, is an attribute of intelligence, it follows, that God will impute the action to the agent, according as a man's intelligence has been able, or ought to have chosen virtue; and that the conformity, or non-conformity of the action to the divine

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will, does not, in the least, enter into the imputation.

Hence we conclude, by applying the action, not to its effect, but to its agent, that the virtuous man is he who always bends his will according to the idea he has of the divine will, from a persuasion, that he is indispensably obliged so to do by this Being : and that the vicious man is he, who directs his will contrary to the idea he has of the divine will, notwithstanding his persuasion that he is indispensably obliged to it.

Hence it follows, that the conviction of the existence of a supreme Being, and the persuasion that this Being has imposed, and had a right to impose a law on us, are the foundations of the natural law, to which man is subjected ; so that the principle of the natural law, consider'd not only with respect to effects, but also with respect to agents, will be the will of the supreme Being, according to which we ought to regulate ours, so as to conduce to the happiness of mankind in general, of society, of every individual, and of ourselves, from a persuasion, that we are indispensably obliged to do so by this Being.

'Tis therefore evident, from what we have now said, that as it is not proved, that the soul of brutes is of the same nature, and under the same obligation with that of man, so it is not proved, that if they have a natural law, this law is the same with that which takes place among

among men; fear alone is, perhaps, the only foundation of it.

But even though experience should point out, in brutes, a certain remorse, and other effects, which we ascribe to intelligence; even though these effects should proceed from an intellectual principle, like ours, and endowed with the same faculties, but only limited; they will not, for this reason, be subject to the same natural law that we are. Brutes discover certain remorse, they have therefore a natural law, as well as we. This is as absurd, as if a person should say, My Gardener calculates; Sir *Isaac Newton* calculates; therefore they are both equally versed in mathematics.

After having demonstrated, that a supreme Being exists, that from his existence there arises an indispensable obligation on us, to regulate our wills on that of this Being, and consequently also, that worship is inseparable from the conviction of this existence; let us now prove, that it is the greatest folly and imprudence, not to act as if there was a supreme Being, tho' the existence of such a Being should be dubious. No one ever thought proper to push the negative on this subject farther than uncertainty. Suppose then, that our understanding is so limited, our ignorance so great, and we so little acquainted with what exists, that we cannot know, whether there is a God, or not; and that even though we could obtain this point, it is impossible for us to know what he is, what he wills, and what

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what is agreeable or disagreeable to him : what influence ought this uncertainty to have on our conduct ?

What would become of the world, if they were all atheists ? 'Tis true, there would be no religious wars, but the whole would be a scene of perpetual robberies. The whole earth would resound with hideous groans, and every one would strive to cut his neighbour's throat : every one would be an *Alexander* : deaf to every thing inspired by a respect to the supreme Being, and abandoned to the spontaneous dictates of self-interest ; malice, confirm'd by impudence, would produce the same effect in man, which devouring hunger does in beasts of prey. The son would cut the father's throat ; perfidy would be the principle of friendship, and confidence would be the foundation of the blackest treachery : let a man muster up the most terrible images in his mind, and then he will have an idea of a world of atheists. What can I expect from a man who dreads no being but myself ; who thinks himself obliged to nothing ; and what credit does he give to my word in a desert ?

If atheists discover probity, it is fluctuating and vain, or only serves to insinuate, that atheism does not exclude honesty. A principle of fear is the only source of their actions. In vain do they affect the appearance of wisdom and moderation, since their timorous and irresolute hearts give them the lye. They have no resolution in adversity, and no moderation

deration in prosperity. If the atheist is free, 'tis only because he has not the art of disguising himself. If he is just, 'tis thro' fear; if he is kind, 'tis thro' necessity; and if he is wise in his conduct, 'tis thro' a defect of power and passions.

On the contrary, the conviction of a Deity inclines us to search after his will; and this enquiry leads us to the knowledge of our duty to God, to our fellow creatures, to ourselves, and to the persuasion, that we ought to promote the happiness of each other. This knowledge would put an end to wars, and produce the greatest unity in societies, if it was not over clouded by passions, and if men, on this account, did not check the obligations which the knowledge of a Deity lays them under: there would be no treaties violated, no perfidious invasions: and there would be no occasion for *Hobbes* to say, *man is a wolf to man*.

We should see men regulating their wills on that of their creator, inspired with mutual love, and by a concurrence to mutual happiness, elevated to every thing that is sweet and agreeable in life, and to the exalted pleasures which accompany the solid hope of being still more happy after this life, and of which we are assured by the possession of actual happiness.

If, after this, the atheist comes to boast of his virtues, to recount his good actions, and oppose religion, his discourses will turn out to his

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his own disadvantage: the man who, in his heart, rears altars to chance, is born to gratify his own passions, and not to feel the powerful force of virtue.

If false notions of a Deity represent things inconsistent with his nature, atheism, which excludes him from the universe, will not be the less pernicious: after this, let a thinking man judge, of what happiness a world of atheists is susceptible, and whether it is equal to our peace of mind, that there be a God or not.

Having shewn the consequences of a Deity, let us, to our demonstrations, add the following considerations, which are as many proofs of the folly of those who are so unhappy as to reason in the above manner.

1st, God is just and good; so that our hope and fear ought not to be limited to our life in this world, since we may justly flatter ourselves, that he who has been so good as to give us existence, will also bestow his favours on us after this life, if we do not render ourselves unworthy of them; and we ought to dread his just indignation, if we have provoked him to it.

2dly, If we look upon God as our father and guardian, nothing can be of greater importance to us than the certainty of his existence, and of the care he has for our happiness, if we ourselves do not fly from it.

3dly,

3dly, No man could reckon him a wise citizen, who when he was told, your prince promises you all kinds of favours, both now and hereafter, provided you observe his laws, which only tend to your own happiness, and at the same time threatens you with all imaginable punishment, if you do not follow them; and has the power, the will, and a right to treat you in these two opposite manners: I say, no man of sense would reckon him a wise man, if he should answer, *It is equal to my repose, whether this prince exists or not.* This would certainly be the height of folly, if by the existence of this being, and an entire resignation to his will, he might be assur'd of eternal happiness. It would be the greatest madness, if, without any examination, he should treat all the proofs of this existence as chimerical; and if he should say, what folly is it to torment ourselves so much about what we cannot know, and what would not render us more happy, if it was known?

4thly, It is of great importance to us, to know, whether we live under civil laws, and of still greater, to know, whether there are natural laws, and a legislator, who is judge of all our actions: if we will not investigate this truth, we must voluntarily shut our eyes, and our ignorance will only render us the more criminal. What may we expect for our negligence, if this being exists; and what do we risque by our prudence, if he does not exist? This is an old argument, but lately represent-

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ed in the most striking and elegant light, by Cardinal Polignac, in his *Anti-Lucretius*, l. 1. v. 102, &c. 1031.

Quid si—&c.

5thly, The persuasion of the existence of a Deity, not only supports us in adversity; but also, without it, nothing can deliver us from the dread of death, a dread which converts the charms of life into a scene of the most profound melancholy and sadness. What can the man expect who refuses to acknowledge a supreme Being, who confounds the soul with the mechanism of the body, and who, by this means, destroys the one with the other? What, I say, can he expect, but to return to nothing, which must necessarily strike him with horror? But the man assured of the divine favour, by a solid and sweet hope, calmly waits the hour of death, in order to relish the exalted joys, with which the goodness of his Creator presents him.

To these observations, which relate to every individual, though there was no person in the world besides himself, we may add others, which concern him as a member of society. The persuasion of the existence of a supreme Being, and a knowledge of his will, are, as we have shewn, the foundation of the law of nature, which tends to the happiness of mankind. This persuasion alone can produce true philosophers, who, in labouring for their own happiness, and that of others, will despise calamities,

lamities, and make such an use of them, as not to render themselves unworthy of the divine clemency. On this subject the reader may consult Dr. *Butler's Defence of natural and revealed Religion*, Vol. IV. Page 9, &c.

'Tis the greatest blindness (not to say more) boldly to affirm, that the existence of a supreme Being does not prove the necessity of a religious worship more than that of another being. Ought not the existence of an eternal Being, who is infinitely good, powerful, wise, and independant, and who has created us out of his unbounded goodness; ought it not, I say, to excite man to the worship, that is, to the true knowledge of this Being, to a sincere love and adoration of him, and to an exact obedience to his laws? This Being would load us with favours, and we will not so much as vouchsafe to shew our gratitude: notwithstanding this contempt, we exist, and like ungrateful wretches, think we are not indebted to this Being. It is not purely for the sake of theory and speculation, that we ought to be persuaded of this truth, since all sciences are vain when not reduced to practice. We can know that there is a God; and from the relation between him and his creatures we can infer, what he wants us to do; how then can we live, as if this Being did not exist, and as if we owed our origin to chance?

'Tis sufficient to render a wise man happy and content, that every thing he sees, that his mind and reasoning lead him to an intel-

ligent Being, who exists by his own nature, and whose goodness, wisdom, and power, &c. discover themselves in every part of the creation; as he will be actuated by love, respect, and gratitude to this benefactor, the contemplation of his excellencies will be his pleasure, and the desire of pleasing him will prove the greatest peace and repose of his life.

'Tis therefore demonstrated, that man endowed with an intellectual principle, which enables him to prefer one state to another, from the ideas he forms of them, and which is not determined by the action of a spring, weight, &c. is not a mere machine, but something *more than a machine*: that all the consequences deduced from the materiality of the human soul, are false in themselves, and do not even follow from this hypothesis: that there is a supreme Being, absolutely perfect, on whom every thing depends, and by whom every thing is governed: and that mankind, in particular, are bound by a law, according to which this supreme Being desires that they should regulate their conduct.

Let us now conclude, with a reflection on the force of experiments. I ask our observers and experiment-makers, who imagine, that nothing can escape their dissecting knives, and their microscopes; and that their skill can discover all the secrets of nature; I say, I ask them, on what they found their observations? What makes them believe their observations, if they do not admit, that there
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is a supreme Being, and that this Being has an unbounded love for his creatures? Without this foundation they can never prove, that their experiments are justly made; they can never, from them, institute a comparison and relation between one object and a similar one; for every one knows, that analogical reasonings (*a*) have the existence of such a Being for their foundation. How do these gentlemen, only supported by experiments, know that a glass which shall magnify objects ten times more than the finest microscope does at present, will not, to-morrow, demonstrate to them what they deny to day, and next day make them deny what, the day before, they had proved by a thousand experiments? All the books of natural philosophy, anatomy, and medicine, are sufficient proofs of the possibility of this. In *Paris* they labour to destroy the *Newtonian* system of gravitation. The discoveries of Mr. *Trembley* overthrow, or, at least, shake the system of generation. Electricity, every day, presents us with contradictory appearances. We ought not therefore to depend solely upon experiments. By what I have said, I have no inten-

(*a*) We reason analogically, when we ascribe what we find in certain objects to others of the same nature, but which we have not examined. For instance, I find honest men and villains in every part of the world, where I have been; and hence I conclude, that the case is the same in every other part, in which I have not been. Logic, among other things, teaches us what we ought to observe in these reasonings.

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tion to discredit experiments; on the contrary, I know and acknowledge the value and necessity of them: but it is easily demonstrated, that experiments only give us a glimpse of truth, whereas sagacity discovers it thoroughly: without the art of reasoning, *Newton, Boyle, and Gravesend* would not have shined so much with their experiments.

Hence we see, that the man who has only experiments to rest upon, has but a very weak support.



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